

MARINE RECORD

ESTABLISHED 1878.

VOL. XXI, No. 39.

CLEVELAND---SEPTEMBER 29, 1898---CHICAGO.

\$2.00 Per Year. 5c. Single Copy

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

PRESIDENT.			
JAMES S. DUNHAM,		Chicago	
VICE PRESIDENTS.			
H. A. Hawgood,	Cleveland	Leander Burdick,	Toledo
David Vance,	Milwaukee	M. J. Cummings,	Oswego
C. W. Elphicke,	Chicago	Alvin Neal,	Port Huron
A. A. Parker,	Detroit	James McBrier,	Erie
G. L. Douglas,	Buffalo	J. H. Westbrook,	Ogdensburg
G. A. Tomlinson,	Duluth	F. W. Gilchrist,	Alpena
Chas. A. Eddy,	Bay City	G. E. Tener,	Fairport
F. J. Firth,	Philadelphia		
SECRETARY.			
CHARLES H. KEEP,		Buffalo	
TREASURER.			
GEORGE P. MCKAY,		Cleveland	
COUNSEL.			
HARVEY D. GOULDER,		Cleveland	
EXECUTIVE COMMITTEE.			
James Corrigan,	Cleveland	William Gerlach,	Cleveland
H. A. Hawgood,	Cleveland	L. C. Waldo,	Detroit
Thos. Wilson,	Cleveland	D. C. Whitney,	Detroit
M. A. Bradley,	Cleveland	W. P. Henry,	Buffalo
John Mitchell,	Cleveland	J. J. H. Brown,	Buffalo
L. M. Bowers,	Cleveland	E. C. Maytham,	Buffalo
H. G. Dalton,	Cleveland	R. P. Fitzgerald,	Milwaukee
W. C. Richardson,	Cleveland	C. W. Elphicke,	Chicago
B. L. Pennington,	Cleveland		

SAULT CANAL TRAFFIC.

The official reports of the traffic passing through the Sault Ste. Marie canal show that the Lake Superior traffic this year has exceeded even the great total of 1897. The statement gives the total quantity of freight carried by vessels passing through the canals, from the opening of navigation to September 1, as follows, in net tons:

In 1896, west bound, 2,228,729, east bound, 8,450,130, total, 10,678,859; in 1897, west bound, 1,628,699, east bound, 9,176,305, total, 10,805,004; in 1898, west bound, 2,823,396, east bound, 9,790,243, total, 12,613,639.

A noteworthy fact is the increase in the carrying capacity of vessels in the trade. Although there was an increase this year of 1,808,635 tons, or 16.7 per cent in the tons carried, the number of vessels reported this year was 11,029, against 10,634 last year, an increase of only 405. The contrast is still more marked when the comparison is made with 1896. The increase in freight this year was 1,934,740 tons, or 18.1 per cent; but there was a decrease of 1,896 in the number of vessels. The average cargo for 1896 was 826 tons; in 1897 it increased to 1,016 tons; while this year it has been 1,144 tons, showing a gain of 318 tons, or 38.5 per cent. over the average of two years ago. This change is chiefly due to the introduction of vessels of great carrying capacity into the ore trade.

The mineral freight passing through the canals this year formed 80 per cent. of the total. The principal freights of this class were as follows, again in net tons:

In 1896, copper, 76,510; iron ore, 5,826,100; bituminous coal, 1,727,071; anthracite coal, 224,888. In 1897, copper, 79,322; iron ore, 6,689,269; bituminous coal, 1,015,627; anthracite coal, 296,183. In 1898, copper, 75,567; iron ore, 7,714,053; bituminous coal, 2,139,778; anthracite coal, 277,131.

Other items of mineral freights this year were 20,215 tons pig iron and 4,063 tons building stone, bound eastward; 149,982 tons iron, steel and machinery, bound westward, and 178,365 barrels of salt.

Last year the movement of bituminous coal was limited by the strike in the Ohio and Pennsylvania mines. In the closing month of the season the shortage was partly made up by extraordinary shipments. This year shippers seem disposed to provide against contingencies, and they are hurrying coal forward.

The growth of the lake traffic has been wholly in iron ore and coal freights, for there has been a very heavy falling off

in the movement of grain. This is due in part to the comparison with a season when the grain movement was heavy, in part also to the low rates made by the railroads which carry grain in competition with the water route.

THE SEAWANHAKA CUP--CANADA'S CUP.

After all the talk about injured feeling regarding the failure of the New York yachtsmen to beat the Canadian yacht Dominion, and to take the Seawanhaka cup away from the Dominion yachtsmen the same club has challenged again, the race to be sailed next year. The Royal St. Lawrence Yacht Club will not return the cup of Seawanhaka Corinthian Club of Oyster Bay, as was announced, and from now on it is expected that all will be amicable.

The Royal St. Lawrence Club will not even confess that they were wrong in sailing Dominion in view of her two-hull construction. But at the same time they will probably agree to a condition prohibiting such boats in the future. If the Seawanhakas acknowledge this and at the same time urge that it is not desirable to carry the designing so far—however justifiable—the St. Lawrence people will no doubt be willing to return to the former method of construction and sail boats with ordinary single hull. All freaks, such as the Dominion and the two or three boats of wondrous shape, will undoubtedly be barred. If not that the other extreme will be reached, and everything carrying a sail will be allowed to compete.

It is expected by Chicago yachtsmen that a challenge will be issued by the Chicago Yacht Club this fall to the Royal Canadian Yacht Club, of Toronto, for the international cup.

This cup was won from the Vencedor of the Lincoln Park Yacht Club of Chicago, by the Canada, representing the Royal Canadian Club, in August, 1896. The Canada, although nearly sailed to pieces, has still been preserved, and fear of this creation of Fife's has deterred every other American yacht club from again challenging the Canadians.

The plan as talked of now, provides for the formation of a syndicate to own and operate the challenging yacht. In all probability the syndicate will be headed by Commodore F. W. Morgan, who has taken a great interest in yachting affairs for the past few seasons. In fact, the idea for a challenge from the Chicago Yacht Club this season originated with Commodore Morgan. He wishes all the club members to come into the syndicate, even if the subscription is not more than 25 cents, so that the yacht may represent the club in the fullest sense of the expression.

The greatest interest in this cup is felt by yachtsmen the length of the chain of lakes. The last race was held off Toledo, and was witnessed by thousands of spectators from all lake cities. The fleet of yachts gathered in Maumee Bay represented every club on the big fresh water seas. Many times since the Canada bore off the handsome trophy there has been discussion of plans for another challenge, but nothing has been done in any case up to the present time.

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, state this week that freights for both grain and cotton have more than held their own, the former advancing to the owners' figures of 3s. 10½d. to Cork f. o., large bottoms continuing to command 3s. 4½d. to picked ports, the latter to 47s. 6d. from the Gulf, 40s. @ 47s. 3d. from Atlantic ports. The demand for steamers or all other trades is not active, but a hardening tendency noticeable in owners' demands, based on the good enquiry for grain and cotton boats, and the by no means large amount of tonnage offering.

Business in sailing vessels continues dull as of late. The supply of tonnage is not excessive, but, in the absence of active demand, the existing dullness weakens the market and forces vessels ready for business to fall in with shippers' terms. The few charters reported below do not yet, however, show any marked decline.

NOTES.

A PROPOSITION is being considered to call at Chicago, about the middle of November, a convention or congress on the project of the Nicaragua canal. The object of the convention is to secure legislation by the United States Congress to the end that the canal may be constructed, controlled and operated under the authority of the United States.

THE Carnegie interests at Conneaut, O., have definitely decided to make extensive improvements at that port. The contract for the necessary dredging and the construction of the docks has been let to the Standard Contracting Co., of Cleveland. The dock will be from 1,200 to 1,500 feet in length and 500 feet in width, and will be known as dock No. 4. It will be provided with three tracks, and there will be two dumping heaps. The river will be dredged to a depth of 20 feet, and the earth taken out, which, it is estimated, will aggregate from 2,000,000 to 3,000,000 yards, will be used in making the land for the dock.

CONSUL GILBERT sends from Liege a letter from a professor of a San Francisco school of engineering, who has been investigating inventions in wireless telegraphy. The professor refers to the system of Dr. Della Riccia, connected with the Montefiore Institute of Electricity, at Liege. Dr. Riccia has made improvements on apparatus already in use, simplifying it and increasing its power, and claims that he can confine the oscillations of the transmitter to any special point, to the exclusion of all others. In case of communication between war vessels or forts, the message could be transmitted to one alone; in case of fog at sea, the oscillations would not be limited. Dr. Riccia, it is said, can make the presence of a vessel known to another at a distance of 30 miles and telegraph real messages seven miles. The full text of the report has been transmitted to the War Department.

SOME one in digging up historic facts concerning the early days of iron furnaces in this country discovered some remarkable figures concerning the profits made by the Jefferson Furnace Co. This company started business in 1854, and for the next seven years paid no dividends; but it then commenced a record which should make modern furnace owners envious. In 1861 it paid 10 per cent.; in 1862, 20 per cent.; in 1863, 30 per cent.; in 1864, 100 per cent.; in 1865, 150 per cent.; in 1866, 200 per cent.; for the next seven years it paid 100 per cent. each year. For the next five years, however, it paid no dividends, but in 1879 it again paid 30 per cent.; in 1880, 200 per cent.; in 1881, 100 per cent.; in 1882, 100 per cent.; in 1883, 70 per cent.; in 1884, 60 per cent.; in 1885, 50 per cent.; in 1886, 30 per cent.; in 1887, 20 per cent.; in 1888, 20 per cent.; and in 1889, 25 per cent. The furnace ran until 1897, and during the last eight years of its operation paid no dividend.

THE steady increase in the demand for the Standard automatic releasing hook for boats is no doubt a source of gratification to the manufacturers of the device and ought to be a pleasing fact for the steamer traveling public to know that the means are fast coming to hand by which a boat can be launched and detached safely and speedily should they be compelled to resort to them in case of accident. It can now be predicted that the time is close at hand when it will be impossible to find a steamer without this equipment for her boats. Certainly there are none more important, and those who neglect every means that will tend to the safety of their patrons do not deserve their patronage. Its merit and value has been recognized by the navy as well as the merchant service to such an extent that all the cruisers in both the auxiliary and regular service have their boats equipped with it. Orders have been received recently by the Standard Automatic Releasing Hook Co. for a supply for all the navy yards and naval stations throughout the country. This has all been accomplished through meritorious results which have been appreciated by parties fully alive to its merits.

NEWS AROUND THE LAKES.

CHICAGO.

Special Correspondence to The Marine Record.

The Chicago floating dry dock had the steamer John P. Hopkins on for a new wheel and general repairs.

Capt. John Prindiville chartered the steamer Santa Maria and consorts Marvin and Fryer for corn to Fairport at 1¼ cents.

Grain freights advanced on Monday to 1¼ cents on corn to Buffalo and considerable business was done at the advanced rate.

The schooner J. H. Mead, which went on Keweenaw Point last week, has been released. The schooner Mediator still remains on and will probably become a total wreck.

Toledo's quota of schooners for the Atlantic coast started on Tuesday. The Massasoit and Crosthwaite were towed to Bar Point and joined there by the Watson. They will be taken to Ogdensburg and thence to New York.

Chicago proposes to have a hand in the fortunes of Admiral Dewey, and a bunch of lake seamen will leave for Manila October 5th. Already about forty experienced men have signed the rolls. They will embark from San Francisco or the Philippines about October 10.

Charles F. Elmes, engine builder, made a new crosshead and fitted it on the engine of the Graham & Morton Transportation Co.'s side-wheel steamer City of Milwaukee and the steamer left immediately the work was completed for St. Joseph and Benton Harbor, her machinery working very satisfactorily.

At the shipyard here the steamer Kalkaska is in dock receiving a new forefoot, new pieces of keel forward and aft, five new bottom planks, three pieces of new garboard and bottom calking, the barge Aloah is receiving 20 feet of new keel aft, the tug Pup, of Saugatuck, Mich., was in for bottom calking.

Assistant Secretary of the Treasury Spaulding has notified the collector of customs at Grand Haven that the fine imposed on the Traverse City Lumber Co. for running the tug Mary McLane two days without a license, had been reduced to \$10. The evidence showed there was no intention of violating the law of the Treasury.

Not in a score of years has Chicago river been in such a frightful condition as it now is. The water is as black as ink and the smell is sickening to the crews of vessels traversing it. The cause of the trouble is that the pumping works at Bridgeport have broken down and the sewers have all been flushed into the river by the recent rains.

The Milwaukee seamen's union has made a demand for an increase of wages from \$1.50 to \$1.75 a day. The demand has been granted and as a result there will be an increase in lake freight rates at once. The case appears to be one where the employers and the employed were in accord and the shipper will pay the advance and a trifle more in the long run. The increase will be in force for the remainder of the vessel season.

Lumber rates to Chicago have followed the upward turn on lake freights and advanced a shilling from all ports this week. There was a good business done at the advance. Sailors' wages have been put up to \$1.50 a day, as is usually the case during the fall. Schooner captains complain that the scarcity of good men is just as real as it was during the summer, and say there are hardly enough seamen for the boats as fast as they are chartered. One craft had to wait a day recently for a decent crew. That is a schooner crew, for of course the streets could yet be paved with roustabouts or fresh water imports.

The Independent Tug Line's tug Ira O. Smith was destroyed by fire Thursday afternoon. The tug was chartered by Capt. Sager who is removing the intermediate Lake View water works crib. She was on her way to the crib to attend to the light when the fire was discovered. The tug struck the structure a glancing blow and proceeded on her way out into the lake. The tugs Robt. Tarrant and James Quinn and the fireboat Yosemite went in pursuit of her and the Quinn and Yosemite got her in tow and the latter tried to quench the flames but she burned to the water's edge and sank just outside the government breakwater. The Ira O. Smith was built at Muskegon in 1877, and has done the Barry Bros. excellent service.

Chicago vesselmen are taking great interest in the transfer to the Atlantic service of the large fleet now on the way to the St. Lawrence. So far as known no Chicago boats have been taken by the Atlantic company, but the influence of the transfer will be felt by them. It was estimated by several vessel owners who gathered on the Board of Trade this morning that the boats already known to be chartered for Atlantic service have a carrying capacity of between 700,000 and 800,000 tons of down-bound freight on the lakes during a season. The removal of that capacity, it was felt, could have but a strengthening influence on lake rates next year. Its effects might be marked this fall even, should the movement of freight be large. The places of the departing vessels in time will, of course, be taken by huge steel carriers, but in the meantime every vessel owner on the lakes will be benefitted.

The following story is going the rounds here: Capt. William Collins, in command of the steamer Leland, visited Grand Haven last week. Once before he visited Grand Haven as a captain of a little schooner way back in 1845,

and had not been in Grand Haven since until he brought the Leland there. When he was there in 1845 Grand Haven was but a pioneer settlement. There were no piers at the harbor, and in making port in a heavy sea the yawl boat of the schooner was lost. Capt. Collins went into the village and hired a horse of Moses Tart, one of the old French settlers of that community, with which to go along the beach and hunt for his boat. The price agreed upon for the rental of the horse was \$2.50. Capt. Collins started on his journey and got as far as the mouth of the Kalamazoo river before he found his yawl. Not caring to make the return journey, Capt. Collins turned the horse over to the stage line people and remained at Saugatuck. The money due Tart was never paid, and while in Grand Haven this week Capt. Collins was looking for Tart to pay him this debt, contracted 53 years ago. Tart has been dead for many years, but his sons still reside in Michigan.

BUFFALO.

Special Correspondence to The Marine Record.

There is a steady, satisfactory movement of coal at 25c. to Lake Michigan and 20c. to Duluth. Canal freights are strong and higher. On corn to New York 2¾c. was paid on Tuesday morning, and at noon 2½c. was paid.

Messrs. Drake & Maytham, the well known brokers and vessel agents at this port, handle the Gilchrist fleet at this end of the route and the boats chartered for the coast will be given every facility to reach there by the above named firm.

The steamer Superior City, on her first visit to this port, went aground in Blackwell canal on her way to the City elevator, and is still fast on Wednesday. She will be released when the water comes up. Her cargo consists of 100,000 bushels of wheat and 40,000 bushels of flaxseed.

The steamer Queen of the West, towing the May Richards, both ore laden for Tonawanda, struck off Germania Park in the Niagara river on the way down on Wednesday morning. The steamer made a run for Tonawanda, but her consort sank. Tugs returned here for steam pumps.

A couple of issues ago the RECORD had a note from Capt. James Davidson about the steam towing machines. Capt. James wants, or ought to write another letter now after the release of the Orinoco near here this week. The Orinoco grounded and was neaped so that at least 20,000 bushels of grain it was thought would have to be lightered. Instead of that the Bermuda, one of the captain's steamers, went out there and anchored, clapped a steel wire hawser aboard and taking it to the steam towing machine floated the Orinoco after only about 3,000 bushels had been taken out of her. The Bermuda can put a weight on a line, the steel wire hawsers can stand it and the steam towing machines do the rest.

The first of the fleet for New York cleared from the custom house on Monday in the schooners Bacon, Watson, Sheldon and Georger. They were taken to Port Colborne by the tugs Cascade and Fabian. How they are going to handle some of these aged, flat bottomed, wooden craft is a mystery so far, and some of the old vessel men here say that if towing they will pound themselves all adrift in less than a month, in any case they won't stand sheathing with yellow metal, or rather the yellow metal wouldn't hold on to them on account of the way they will work. If they are not sheathed they will be wormed in short order and then not be fit to rebuild, nor are they fastened for salt water use. It has been suggested that they are to be used trading from Gulf ports to the West Indies.

DETROIT.

Special Correspondence to The Marine Record.

The Robert L. Fryer received new pumps at the yards of the Detroit Dry Dock Co. this week.

The small passenger steamer Roberta, was burned last week while lying at lakeside dock, Mt. Clemens. Ten minutes after her crew left, her entire upper deck was in flames. The boat is owned by the Detroit and River St. Clair railway, and has plied between St. Clair river ports this season. The loss is covered by insurance.

The Detroit and Cleveland Navigation Co.'s steamer City of Mackinac has made her last trip for the season. The steamers leaving Detroit Wednesdays and Saturdays have been discontinued. Steamers leaving Cleveland at 10:15 p. m., Sunday and Thursday nights, will make connection here with the steamer City of Alpena for Mackinac and way ports until the close of navigation.

J. C. Gilchrist, of Cleveland, has been appointed agent by the people who are chartering their boats for the coal trade on the Atlantic coast. He will charter a large fleet of barges in addition to those which he is now preparing to move down the St. Lawrence. The steamers H. E. Runnels and Linden have been chartered, but no Chicago vessels have been secured as yet. This port is in it with some of the Parker & Millen fleet.

The Charles A. Eddy was released by the tug Sweepstakes on Wednesday, from her stranded position in the Straits of Mackinac. About 900 tons of ore were jettisoned. A steam pump was put on board and the steamer taken to St. Ignace to be patched before continuing to Chicago. She is leaking badly at present, but her own pumps keep her free. The R. E. Schuck, was also in collision with the Griffin this week in the "Soo" river. Neshoto reloaded her lightened cargo at Amherstburg, and left on Wednesday for Buffalo, where, after discharging her cargo she will be placed in dry dock.

The damage to the steamer Atlantic by the recent fire on board will amount to about \$3,000 according to the estimate made by her owner, Captain W. I. Brown. The boat is insured for \$5,000. Captain Brown was getting ready to put his boat into commission to pick up some of the paying cargoes that are offered in the fall, but the fire will probably prevent his carrying this intention into effect. The Atlantic was built in 1867 and was one of the celebrated trio of "magnificent steamers"—the Atlantic, Arctic and Pacific—that carried the cream of passenger traffic in the '70s. Her hull is said to be in splendid condition, not an unsound timber in it.

The revenue cutter Morrill, which will take the place of the W. Q. Gresham, sent to the coast from the lakes, is being overhauled and will probably start for her station at Milwaukee in about three weeks. Before the war the Morrill was stationed at Charleston, S. C., and during the war she was engaged in blockading duty. The cutter will be commanded by Capt. A. B. Davis, who was in charge of the Johnson and Gresham. Capt. Davis says that although the Morrill is smaller than the cutters of the Gresham class, she is better fitted for service on the lakes. The Morrill is of iron, 145 feet long, 24 feet beam and draws 8½ feet of water. Her crew will comprise thirty-two officers and men and she will carry one gun. Capt. Davis says that she is a fine little vessel, quite speedy and very handy to enter the many harbors on Lake Michigan, also a very suitable craft for the St. Mary's river, also that she is much needed on Lake Michigan as well as adjoining waters. In all of his intercourse with lake people Capt. Davis has acquired and held their esteem and if a popular vote outside of departmental rules and orders was to prevail, he would take charge of the Morrill just as he is slated for by the department.

CLEVELAND.

Special Correspondence to The Marine Record.

The following vessels have been in the Ship Owners' dry docks this week: The steamer John Owen for large bottom repairs and re-calking all over; the Grover for a new propeller wheel; and the steel steamer Malta, of the Minnesota line, has been given twenty-three new plates, fender strakes, etc.

The work of chartering vessels for the Atlantic coast trade grows apace. Many owners seem to see great possibilities in the new idea and J. C. Gilchrist's office these days is a scene of great activity. The boats chartered by him Wednesday, were the H. W. Sage, from John Kilderhouse, of Buffalo; the Aragon, from C. R. Jones, of Cleveland; the Simon S. Murphy, from A. W. Murphy, of Green Bay; the A. G. Lindsay, from Frank Howard, of Ann Arbor; and four schooners of the Davidson fleet. This makes a list of forty vessels secured up to date.

The Atlantic Transportation Co., of New York, is negotiating with Cleveland vesselmen for a fleet of twenty-five or more schooners to be taken to the Atlantic coast by way of the Canadian canals. The vessels are to engage in the coal trade between Newport News and New York, Boston and other places north of the West Virginia coal supply. J. C. Gilchrist is understood to have completed arrangements for the charter of all ten of his schooners for three years, with an option to the New York company to purchase at any time during the period of charter.

A Milwaukee-built vessel will soon be engaged in the coast trade, viz., the schooner Penokee. The vessel, which is of the discarded Welland canal build, was the product of the old Wolff & Davidson shipyard, and was built originally for John B. Merrill and others. She was recently sold by F. I. Harvey, of Detroit, to P. P. Quayle and others, of Cleveland, is now at Buffalo being fitted out for trading to the West Indies. She will be commanded by Capt. William Somerville, who is also part owner, and his intention is to charter for as low down Lake Ontario as possible, say Ogdensburg, and then to re-charter at Montreal or Quebec for the West Indies, where he thinks a paying trade for a small, handy vessel can be picked up.

The following data, covering a period of 26 years, have been compiled from the Weather Bureau records at this port for the month of October for 26 years: Temperature—Mean or normal temperature, 52°; the warmest month was that of 1879, with an average of 59°; the coldest month was that of 1895, with an average of 47°; the highest temperature was 87° on October 7, 1879; the lowest temperature was 24° on October 26, 1887; average date on which first killing frost occurred in autumn, October 11; average date on which last killing frost occurred in spring, May 1. Clouds and weather—Average number of clear days, 9; partly cloudy, 9; cloudy, 13. Wind—The prevailing winds have been from the southeast; the highest velocity of the wind was 62 miles from the west on October 11, 1894.

It is said that Herman B. Duryea is to be associated with Morgan and Islen in the new cup defender syndicate. In view of this fact it is not likely that more than one boat will be built to defend the cup. The work of preparing the ways for the Defender is progressing. It is understood that the aluminum upper body of the Defender will be entirely removed as the plates have so thoroughly corroded as to be useless. Thin plates of bronze will be substituted. Lieut. John A. Tobin, U. S. N., the inventor of Tobin bronze, with which the Vigilant is plated, has been in consultation with the Herreshoff people and it would not be surprising if Tobin bronze plates were put on the Defender to replace those of aluminum, as well as a portion of the build of the new yacht.

FLOTSAM, JETSAM AND LAGAN.

The schooner Mineral State has been sold by F. R. Straight, of Toledo, to David Bulard, of Cleveland, for \$1,500.

The Detroit, Grand Rapids and Western Railway Co. has let to Robert Love the contract for completing its car ferry slip at Muskegon harbor entrance.

It is reported from Houghton that the schooner Wenona will not be released this fall. The hull lies out of the way of navigation at the mouth of the canal.

The record for big coal cargo on Lake Superior was broken yesterday when the new steamer H. H. Holden, on her maiden trip delivered 6,434 tons of coal to the dock of the Northwestern coal railway on Allouez bay.

The steamers Linden and H. E. Runnels, owned in Port Huron, have been chartered to go to the Atlantic, and will leave the lakes in a few weeks. These two boats have hitherto been engaged in carrying copper from Lake Superior to Buffalo.

The Detroit Journal states that the regular army is made up of 25 per cent. of foreigners, while in the navy 52 per cent. of the petty officers and 42 per cent. of the seamen are foreign born. Forty per cent. of those who went down with the Maine were of this class.

The fishing tug Janie E. Smith located the wreck of the schooner Keepsake, which foundered in the storm of last Saturday night, about six miles northeast of the Ashtabula piers. The spars and rail of the wreck are floating on the surface, being held by the rigging.

John McDowell, for some time associated with the Chicago Ship Building Company and later assistant foreman at the Roach shipyard, Chester, Pa., has been appointed superintendent of iron and steel construction at the yard of the Harlan & Hollingsworth Co., Wilmington, Del.

Mrs. Unsofist—They say that the Minneapolis can steam twenty-four knots in an hour."

Mr. Unsofist—That's what she can do.

Mrs. Unsofist—I suppose they steam them so that the poor sailors can untie them more easily.—Brooklyn Life.

The contract for two new yachts has been received by Roach's shipyard at Chester, Pa. One is for J. Gardner Cassatt, of Philadelphia, and the other for M. Tompkins of Boston, Mass. Mr. Cassatt's yacht will be a large, roomy vessel, strongly framed and capable of cruising in any sea. Its length will be 165 ft.

Preparations are now being made for reopening the Maryland Steel Co.'s shipyard at Sparrow's Point. In expectation of getting contracts from the government to build three or four torpedo-boat destroyers, F. W. Wood, president of the company, is actively engaged in assembling an efficient organization of shipbuilders.

The heavy losses sustained by the insurance companies on account of a large number of accidents within the past few days, are causing some anxiety among vessel men regarding hull insurance next year, especially on wooden vessels. It is predicted in some quarters that there will be no insurance on wooden vessels next year, and that the rates on steel hulls will be marked up.

A Mr. Bromage, who represented the shipowners of London on the Pilotage Committee of the Trinity House, had recently with some difficulty, as he stated, obtained a return of the earnings of the Thames river pilots, and this showed that, with incomes varying from £200 to £1,600 per annum, the amount earned by each man averages, approximately, £35 (\$175) per month.

Oswego marine interests are making themselves heard quite vigorously on the question of abolishing Welland canal tolls. The opposition to the idea comes chiefly from Buffalo, which would be very apt to suffer pretty severely if the proposed change were made. Naturally enough, Oswego men cannot be made to see that this is any reason why they should relax their efforts in the matter.

Repairing a gunboat on the Nile is an undertaking of some difficulty. Recently the Hafir in her passage through the cataracts had several places stove in. Berber at the present time does not boast of a dockyard, and to effect the necessary repairs the boat had to be hauled high and dry on the river bank. To do this 800 men were employed under the direction of Commander Keppel, R. N., and in the course of two hours the craft was out of water.

Three Canadian steamers were in trouble lately at Duluth. The Tilley arrived at Duluth from a Canadian port, and, it is claimed, allowed some passengers to land before the vessel was reported at the customs house, steamer Dunsmore arrived and failed to report within the time require by law, while the Bannockburn is said to have arrived and then departed for Superior without first reporting at Duluth and obtaining a permit to visit the other American port.

Capt. Sam Betts, with his canoe 16-to-1, on his way around the world, has arrived at Toledo, after a voyage on the Great Lakes this spring and summer, of fully 1,718 miles. He is going down the canal to Cincinnati, thence down the Ohio and Mississippi rivers to New Orleans, then around the Gulf of Mexico to Florida, up the Atlantic coast to New York, then through the Erie Canal to the Great Lakes, a trip that will take one year and will be about 5,500 miles.

Official numbers assigned to vessels by the Bureau of Navigation, Treasury Department, during the week ending September 17, shows that the Huron, built at the Lorain yards of the Cleveland Shipbuilding Co. and hailing from Cleveland, is 1,945 gross and 1,309 net tons. The City of

Sault Ste. Marie, built at Dutch Harbor, Alaska, and hailing from Marquette, Mich., is 148 tons gross and 93 net. The Argonaut, built at St. Michael, Alaska, is only 15 tons gross and hails from Chicago.

Capt. O. E. Larson, owner and master of the schooner J. H. Mead, will begin proceedings soon against the steamer Kalkaska to recover damages for loss sustained by his vessel going ashore. Capt. Larson will endeavor to prove negligence in the towing steamer. The Kalkaska had the Mead and Mediator in tow when they went ashore recently. The schooner Aloah, the regular consort of the Kalkaska, also went aground. The steamer released the Aloah, but left the Mead and Mediator on the beach.

"Now, shall I hug the shore?" he said,
When for a sail they'd started.
Her pouting lips so bloomin' red
In blank amazement parted!
Then blushing she answered: "Yes,
(Her head against his sweater),
You'd better hug the shore, unless
You think there's somthing better."
The stars alone can tell the rest—
We didn't see the squeezein' fest.
—Denver Post.

DETROIT MARINE POST OFFICE.

LETTERS REMAINING ADVERTISED IN DETROIT, MICH., POST-OFFICE SEPTEMBER 28, 1898.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Bury, Edward	Green, Mrs. W. H., Str. Mer-
Bowen, A. C.	ida
Barton, Jim	Green, Mrs. Carrie, Str. Mer-
Bartlett, Capt. J. L.	ida.
Brines, Sam	Hargrove, Samuel, Str. Aztec
Ball, Mary	Judge, John R.
Corbett, James	Jenkins, Hugh
Cross, Mrs. W. H., Str. Pan-	Kurtz, Frank
ther	Lawson, Louis
Cross, W. H., Str. Panther	L'Hote, Harry, Str. Uganda
Cowles, Noah W., Sch. Em-	Lafier, Fred., Sch. Ketchum
erald	Law, Charles, Sch. Chatta-
Dupont, Paul	nooga
Eagley, Edwin, Str. Bessemer	Lardiff, John
Elliss, W. T., Str. S. J. Macy	Martin, Eber, Str. Williams
Eagan, Lorenzo, Str. Mather	Miller, C. W.
Ellis, Frank	McGill, Hugh, Str. Williams
Fowlie, A.	Petersen, John
Fox, Thos.	Peasley, James
French, Arthur	Pettengill, H. S., Sch. Ne-
Ferguson, John	gaunee
Fitzgerald, F. L.	Pfiffer, Mary
Flynn, J., Str. Cambria	Packer, G. D., Yacht Gonta-
Foley, Thos., Str. Schuck	luta
Foster, H. T.	Pemberton, Lovell
Griffley, Albert, Str. S. R.	Rust, Geo., Str. Owego, 2
Kirby, 2	Romer, Arthur
Gatling, A. C.	Smith, Michael
Gibbs, J. H., Str. Merida	

F. B. DICKERSON, P. M.

THE PROPER OLD WAY.

Gov. Tanner has decided that the battleship Illinois shall be christened with wine, and has sent the following letter to the committee of the Woman's Christian Temperance Union, which protested against christening the battleship with anything but water:

"Ladies: I have the honor to acknowledge the receipt of your letter of the 10th inst., replying to which I will say that it is with pleasure I pay my highest respects to the noble women of your union, and acknowledge with profound appreciation the excellent good you are laboring to establish. I would consider it a privilege to be able to assist you. Thousands of homes are better for your guardianship; thousands of hearts are grateful to you for your aid, and the world is better for having known the Woman's Christian Temperance Union.

"In the matter, however, of following the time-honored custom of christening battleships, there is no desecration of the laws of temperance. The ceremony is not one from which any evil could possibly be set forth, and the most sacred religious ordinance, the 'Sacrament,' the world commemorates with the deepest solemnity and honor, is one in which wine is used as a symbol. Therefore, I dismiss the subject as one unworthy of so much agitation. If left to me to settle, the battleship Illinois will be christened according to the time-honored custom."

LAUNCHES OF THE WEEK.

The car ferry Ann Arbor No. 3, built by the Globe Iron Works Co., Cleveland, was launched on Saturday. She will be employed in carrying cars across Lake Michigan, between Frankfort, Gladstone, Menominee and Manitowoc. She will have a capacity of 22 cars. The new vessel will be supplied with passenger accommodations and will carry a limited number between the points mentioned.

The new steel steamer Clarence A. Black, being built at the yards of the Cleveland Ship Building Co. for Detroit owners, will be launched at 3 p. m. Thursday.

SOME COMMODORE PERRY HISTORY.

The war of 1812 caused a separation between two brothers who came together from Devonshire, England, to Narragansett Bay, and the two families descended from these two brothers have shared something of their respective countrymen's patriotic antipathy toward each other until the recent growth of strong Anglo-American sympathy has caused the present generation to rejoice in the disappearance of old jealousies.

The Yankee family produced Oliver Hazard Perry, the hero of the battle of Lake Erie.

The father of Commodore Perry and his brother, Robert Perry, came from Devonshire to find American homes about the beginning of the century that is now closing.

When the war of 1812 began, one brother, the father of Commodore Perry, remained in the United States, while his brother Robert, being in sentiment a royalist, moved over the boundary into Canada, although he never participated in hostilities against the Americans. He settled near Kingston, where his house yet stands, preserved with much care on the beautiful grounds of the old homestead. In this house a large family was raised, whose descendants are occupying positions of honor and trust all over Canada.

The sons were Robert, David, Daniel, William, Peter, and Ebenezer. The last named, or youngest, moved from Kingston to Cobourg, Ontario, where he died at the age of ninety-five years. This cousin of Commodore Perry was a senator in the Canadian Parliament from Cobourg.

Hon. Ebenezer Perry was the father of Mrs. Ward, the only daughter in a family of children whose members were George, Annie, Charles, Robert, and Egerton, the last named, Dr. Perry, serving with the Federal army in the war of 1861 as surgeon, dying in the service.

AN ENORMOUS INDUSTRY.

A special from McKeesport, Pa., states that plans are now being prepared by the Carnegie Steel Co. for a gun foundry to rival that of Krupp, the German gun builder. The plant will be located at Homestead, within half a mile of the Homestead armor mills, and will employ over 2,000 men.

In addition to this the steel company is preparing to go into the ship building business. A railroad to strike tide-water at Newport News or Norfolk, Va., is now under way.

The parcel of land for the plants contains thirty-five acres and cost \$350,000. It fronts 1,600 feet on the Monongehela river and has an average depth of about 1,300 feet. Three lines of railroad run through it. The Union railroad connects all the plants of the Carnegie Steel Co. The Carnegie plants at Rankin, Braddock, Duquesne and Homestead are now connected by the famous Hot Metal route of the Carnegie Steel Company. This economical arrangement, coupled with their own short ore line to Lake Erie, has enabled the Carnegie company to dictate terms to their competitors.

Heretofore the company has confined its business entirely to manufacturing material. Now it proposes to enter into the business of using its own product. To this end the shipyards and gun foundry are to be established, and a railroad line is now being built to tidewater.

INWARD AND OUTWARD TURNING SCREWS.

We notice in the daily press an account of a trial on Howard Gould's new twin-screw yacht Niagara of inward and outward turning propellers. The outward turning arrangement is the usual one, but there has been much discussion on the subject, some naval authorities having held that the inward turning plan is superior, and accordingly, Mr. Gould's yacht was fitted with inward turning screws, under which arrangement at 128 revolutions per minute it developed a speed of only 12.5-8 knots per hour. This was not satisfactory and outward turning screws were substituted, when the boat made 14.1-5 knots at 120 revolutions per minute. The circumstances is taken as proving the superiority of the outward turning screws, but to form a final judgment on a single experiment would doubtless be premature. There are few mechanical details which are surrounded by so many conditions which react on each other as the screw propeller. Of two screws tested in comparison one may show itself superior in one case and the other in another, and, in fact there is probably no mechanical detail regarding which it is so difficult to make generalizations as the propeller. While therefore the experiment with Mr. Gould's yacht is highly interesting and significant, it can hardly be taken as proving the case.—American Machinist.

A DISTRICT SUPERINTENDENT.

A competitive examination to select a successor to the late Capt. Robbins, superintendent of the eleventh life-saving district, was held at Grand Haven on Saturday. The following keepers of stations participated: Ewald of Pentwater, Andres of North Manitou, Lawson of Evanston, Stevens of St. Joseph, Olson of Plum Island, Lysaght of Grand Haven, Lysaght of White Lake, Miller of Point Betsey, Morrison of South Chicago, Morton of Holland, Fountain of Chicago. The result will not be made known until due consideration has been given to the matter at Washington, it is safe to say however, that the man best adapted for the position of district superintendent in the U. S. Life Saving Service will be appointed to the vacancy irrespective of any leanings or influences.

CORRESPONDENCE.

We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

RICHELIEU & ONTARIO NAVIGATION CO.

MONTREAL, September 26, 1898.

To the Editor of The Marine Record:

DEAR SIR.—I was under the impression that our traffic manager, who has been in the west, would have answered in your last issue the letter of Capt. Thomas Wilson, which appeared in your issue of the 8th inst. Finding on his return that he had not done so, I beg to state:

That the reason Capt. Wilson, on his return some four weeks ago from Chicoutimi to Quebec, on the steamer Carolina, belonging to the Richelieu and Ontario Navigation Co., had to pay for his rooms a second time was, that his room ticket purchased in Montreal was a round trip ticket and he neglected before leaving the steamer at Chicoutimi to get a stop-over on it good for his return. All tickets are returned to the head office to be checked at the end of each trip, and when he rejoined the steamer, therefore, on another trip, he had nothing to show and there was nothing on board to show that he had paid for his rooms, so the purser had to collect. On the trip going to Chicoutimi the purser did not know he was getting off there; the captain knew, but, naturally, presumed his tickets were all right. Being already provided with tickets from Montreal, he had little or no occasion to go to the purser except to get a stop-over on his round trip room tickets, his other tickets being separate tickets. The purser does not usually collect tickets, but only issues and exchanges them; the man who gives out the keys is the person who generally collects the room tickets. The agent at Montreal gave him a round trip room ticket to save him the difference in cost between it and separate tickets. The agent makes a practice of telling purchasers of round trip tickets that they can get a stop-over ticket from the purser, and presumes he did so in this case; even if he did not, if Capt. Wilson had exercised the care usual with travelers, he would have inquired before leaving the steamer why it was that he had his passage and meal tickets all right for his return, but nothing for his rooms. This is the first case in which this difficulty has occurred as far as I can ascertain.

Practically the double payment only amounted to his being out of his money during the time necessary for the application for refund to pass through head office. In a case of this kind a refund is a matter of certainty with respectable companies. Mr. Browne, our traffic manager, told him the amount would be refunded. His failure to state this leads to the unfair inference that the company was trying to hold on to it. The refund, which allows for the partial loss of use of the rooms, as well as the extra payment, passed the passenger department in August and was remitted to him since the date of his letter.

In regard to his having to wait for his rooms until late in the afternoon on the day of his return. There were five or six rooms given out before he got any, to parties who had either telegraphed before he did, or had engaged them for the round trip from way ports, as the list put on board at Quebec shows. Round trip engagements take precedence, and when a person with a round trip ticket gets off at a way port, he loses his precedence. In the afternoon before reaching Riviere du Loup, he went to the purser's office and complained about not getting his rooms, and while he was there some passengers holding round trip tickets came up and announced their intention of getting off at Riviere du Loup, and asked for stop-overs for the return to Quebec. The purser gave him the two rooms vacated by them, and these were the first rooms he was entitled to under the rules. Later on, the purser asked him how he liked his rooms, and he said they were very nice rooms. Again before 8:00 p. m., the purser offered him another room vacated by passengers getting off at Murray Bay, but he said he had enough.

The real sum and substance of his grievance appears to be that, on a trip when the steamer had more passengers than on any other during the whole season, he had to wait the greater portion of the day before he got his rooms; of course this was aggravating, but, if he had accepted, as I think he should, the offer of the captain's room, (which was not limited to the day only, as he infers, but was intended for the night as well,) he would have been more comfortable. In his travels in the future, and I hope they will be many, I trust he will never experience anything worse than this.

His expression, "ladies' steerage," referring to the usual first-class ladies' cabin on the main deck aft, is unfair, and

his statement as to passengers standing waiting for meals is exaggerated.

I deny most emphatically that the steamers referred to, the Carolina and Canada, constitute a miserable service as alleged. They are both first-class steel steamers of over 260 feet in length, speedy, weatherly, with ample and well furnished stateroom and other accommodations for all the requirements of the route and the commendations we receive for our Saguenay service are almost universal.

During this summer, as is well known, the travel was not distributed as evenly as usual. On this route in June and July it was the lightest in my experience; and in August, at the time in question, it was heavy. If this could have been foreseen, the Carolina and Canada could have made six trips a week as easily as four, thereby increasing the accommodation one-half; but the rush commenced and finished without warning, and there was no time to give such notice as is necessary to make any running arrangement efficient. It is not likely the company would keep their steamers only partially employed if the traffic warranted fuller employment. * * * * C. F. GILDERSLEEVE, Gen. Mgr.

The foregoing being submitted to Capt. Wilson he replied to his interviewer as follows:

"I supposed this matter was at an end, but the letter of the R. & O. Co.'s general manager calls for a few explanations. We got off at Ha Ha Bay on the way up the Saguenay; or, rather the boat did not stop at Ha Ha Bay going up, to be exact, and we remained aboard until she stopped there returning. The distance from Ha Ha Bay to Saguenay, the end of the boat route, is only about ten miles by land and about 25 miles by water. While at Ha Ha Bay I noticed there was nothing in our tickets covering rooms for the return trip, but as I arranged to go from Ha Ha Bay to Chicoutimi on the same boat, the Carolina, with the same purser who was dealing with us all the time, I thought I would have the matter arranged on the way up. I submitted the tickets to him again, but he simply told me they did not call for rooms. I thought it strange, but supposed the mistake had been made by the agent at Montreal, and went on with the intention of paying for rooms and fixing up whatever little difference there was when I got back to Montreal. When I waited over a day at Montreal to see Traffic Manager Browne, he said the purser should have given me a ticket for return rooms when he took up my state-room tickets going up. Of course, if I had known it was necessary, I should have been on the lookout. But even when I sought information, I often found difficulty in getting it on account of the French accent of the crew, which was quite marked when it was found convenient to have it so."

Mr. Gildersleeve no doubt wishes to manage the R. & O. Nav. Co. to the best of his ability, and the latter portion of his letter marked (* * *) would clearly indicate his advertising keenness, but it is quite evident that some of his subordinates do not know how to facilitate passenger travel.—EDITOR.

VISIBLE SUPPLY OF GRAIN

As compiled for The Marine Record, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	364,000	1,081,000	512,000	58,000	156,000
Chicago	749,000	8,253,000	796,000	174,000	55,000
Detroit	54,000	143,000	19,000	15,000	4,000
Duluth and Superior	1,656,000	1,276,000	123,000	49,000	286,000
Milwaukee	7,000	.....	5,000	.....	26,000
Montreal	43,000	12,000	364,000	24,000	6,000
Oswego .....	.....	.....	.....	.....	.....
Toledo	178,000	112,000	31,000	12,000	.....
Toronto	4,000	.....	6,000	.....	7,000
On Canal	25,000	1,350,000	246,000	.....	151,000
Grand Total	9,308,000	19,652,000	4,754,000	746,000	1,156,000
Corresponding Date, 1897	19,543,000	35,597,000	10,850,000	2,537,000	1,644,000
Increase .....	.....	405,000	53,000	121,000	496,000
Decrease	880,000	.....	.....	.....	.....

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

If the estimates for appropriations presented by the Bureau of Yards and Docks of the Navy Department for making League Island a first class naval station are approved by the Secretary and granted by Congress a fair start will be made in the direction of doing for that station what should have been done many years ago.

THE STORY OF GRACE DARLING.

Fifty years have passed since the heroic exploit of Grace Darling made her name ring through the British isles from shore to shore; but her fame remains undiminished, and a prominent position in the annals of female heroism will always be hers.

Grace was the youngest daughter of William Darling, a steady, trustworthy man, who filled the responsible post of keeper to the Longstone light-house, just off the Northumbrian coast. She was a true child of the sea; all her life she had lived in the gray stone dwelling, with the rocks for her play-ground and seaweed and shells for her toys.

In spite of her health-giving surroundings, the light-house keeper's daughter was a slim, delicate little thing, only a trifle over five feet high, but she had a very lovely face, with refined oval features, large, expressive eyes and a wealth of soft, wavy hazel hair.

One evening in September, 1838, a terrific storm was raging. To the inhabitants of the "Longstone" the very rock on which their home was built seemed to be shaken by the violence of the wind.

That night Grace could not sleep. She tossed and turned nervously on her bed, listening to the mighty battle that raged without, and fancying every now and then that she could hear a wail of agony or a piercing shriek. About 2 or 3 in the morning she was sinking into a troubled doze, when she jumped up in her bed, sprang to her feet and rushed to the tiny window. She was positive that this time she had really heard a shriek of human agony. Alas! she could see nothing. The darkness and sea fog blotted out everything.

She threw on her clothes, ran up to her father, who was at his post beside the beacon lamp, and said:

"Oh! father, there has been a wreck close by, I heard the poor wretches shrieking for help."

Darling pointed the telescope in the direction his daughter had indicated. She had spoken the truth. There, hanging upon a sunken rock half a mile distant, was a portion of a vessel, with a number of people clinging to it.

"Father, we must save them!" was Grace's cry.

The old man shook his head. "No boat could live in a sea like this," said he; but finally Grace's pleading prevailed, and he helped her to launch the boat.

Grace sprang into the little craft: her father quickly followed, and they were soon propelling themselves through the turbulent waters, leaving Mrs. Darling, who had just joined them, alone on the rock.

Providently, the craft reached the wreck without mishap, and while Darling clamored on the reef, Grace handled the boat so as to be ready to receive the fainting seafarers, who were clinging with bleeding hands to spars and ropes and pieces of wreckage. Nine people in all, the sole survivors of the passengers and crew of the Forfarshire, were packed into the little boat, and the return journey was begun. That was even more perilous than the outward one had been; but Grace handled the oars with superhuman skill, and the Longstone Rock was reached in safety.

The next day all England was ringing with the account of the light-house girl's sublime deed. A public subscription was set on foot, and she was presented with the handsome sum of £700. Poets sang her praises, and peers of the realm flattered her. She received numerous offers of marriage from admirers, and the manager of a London theatre offered her £100 per night for sitting a few minutes in a boat so that his audience might see her.

These and kindred offers Grace, however, refused, she electing to remain at her old home; but the delicate girl never recovered from the exposure of that terrible night. Four years after she was laid to rest in the old churchyard of Bamborough, in Northumberland.

GOVERNOR TANNER, of Illinois, replying to a protest from the Woman's Christian Temperance Union against the christening of the battleship Illinois with wine, states that the time-honored custom will be followed, and that the ceremony is not one from which any evil could possibly be set forth; and the most sacred religious ordinance, the "sacrament," the world commemorates with deepest solemnity and honor is one in which wine is used as a symbol. These perserving ladies have made a last appeal to the builders of the ship and we hope that they will receive an answer that will finally convince them that good sense controls such matters and not the persistent assertion of fanatical opinions. There are seventy or seventy-five millions of people in the United States, and we venture to say that those who agree with the Woman's Christian Temperance Union in this matter is too small a fraction to be counted.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—ILLINOIS.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., September 21, 1898.

WAUKEGAN HARBOR BEACON LIGHT.—Notice is hereby given that, on or about October 1, 1898, the color of the light on the outer end of the north pier at the entrance to Waukegan harbor, westerly side of Lake Michigan, will be changed from white to red.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., September 26, 1898.

FAIRPORT PIERHEAD RANGE REAR LIGHT STATION.—Notice is hereby given that, on the night of September 13, 1898, the rear beacon of the range for entering Fairport harbor, fell by collision of a vessel, and that on September 23, 1898, one fixed red lens-lantern light (instead of three lights as heretofore) was established in the structure erected on the site of the fallen beacon.

The new structure is a square, red, pyramidal, open, wooden framework, surmounted by a square inclosed lantern, from which the light is shown, surrounded by a balcony and a black hand-rail. The focal plane of the light is now 55 feet above mean lake level.

LAKE MICHIGAN—WRECK GAS BUOY.—Notice is hereby given that, on September 20, 1898, a gas buoy, painted black, and showing a fixed white light, was established, in 33 feet of water, about 300 feet northerly from the wreck of a three-masted tow barge sunken during the night of September 4, near White Shoal, northeasterly part of Lake Michigan. The wreck lies in thirty feet of water, $1\frac{1}{4}$ miles N. W. by W. $\frac{1}{4}$ W. from White Shoal light-vessel, and had the three masts standing when last seen. The gas buoy replaced the temporary black spar buoy established to mark the wreck September 11, 1898.

Waugoshance light-house, S. 39° E. (S. E. $\frac{1}{2}$ S.) $5\frac{1}{2}$ miles.
Skulligallee light-house, S. 2° $24'$ W. (S. $\frac{1}{4}$ W.) $11\frac{1}{4}$ miles.
Seul Choix Pointe light-house, N. 81° $30'$ W. (W. $\frac{3}{4}$ N.), $36\frac{1}{2}$ miles.

Bearings are true; miles are statute miles.

By order of the Light-House Board.

RUSH R. WALLACE,
Commodore, U. S. Navy, Chairman.

DOMINION OF CANADA—ONTARIO.

RANGE LIGHTS AT SOUTH BAYMOUTH.—Two range lights, established by the Dominion of Canada at South Baymouth, to lead into the entrance to South bay (Manitoulin gulf), on the southeast shore of Manitoulin Island, Lake Huron, will be put in operation on or about the 26th instant.

The front range light building stands upon the southeast end of a bare limestone island lying on the north side of the mouth of the bay.

Lat. N. 45° $30'$ $35''$
Long. W. 81° $58'$ $25''$

It is a square wooden tower, with sloping sides, surmounted by a square wooden lantern, the whole painted white. The tower 28 feet high from the ground to the vane of the lantern.

The light will be a fixed white light, elevated 28 feet above the level of the lake, and visible ten miles from all points of approach by water. The illuminating apparatus will be dioptric of the seventh order.

The back range light building stands upon the main land of Manitoulin Island, in the woods behind the village of South Baymouth, 772 feet N. 28° E. from the front tower.

It is similar to the front tower, but is 40 feet high. The light will be a fixed white catoptric light, elevated 46 feet above the level of the lake, and should be visible twelve miles in, and over a small arc on each side of the line of range.

To enter South Bay vessels may bring the lights in one well off the shore line, and keep the alignment N. 28° E., until within 600 feet of the front light, or until the rock next south of the light-house rock on the west side of the mouth is almost abeam, when they should haul sharply round and steer N. 77° E. until they are clear of the south end of the village wharf, behind which there is good shelter. This track carries 20 feet water. When about half a mile outside the outer light-house, and just east of the range, a rock with 15 feet least water on it may be found, and should be carefully guarded against, as it usually breaks in a southerly sea.

DOMINION OF CANADA—ONTARIO.

IMPROVEMENTS IN THE ENTRANCE TO PARRY SOUND—1. OLD, OR NORTH, CHANNEL, ADOPTED.—In consequence of the greatly increased draft of steamers now navigating Parry Sound, the government has decided to efficiently mark the old or north channel, south of Pancake Island and north of McClelland rock and Carling rock, and to abandon the marking of the new or south channel, north of Gordon rocks, and south of Nias and Carling rock. Masters are therefore advised to use the old or north channel, which is shorter, straighter and carries better water than the new channel.

2. GAS BUOY ON HOOPER ISLAND SHOAL.—As an aid to the navigation of the old channel, a steel gas buoy, painted red, with the words "Hooper Island Shoal" in white letters on the sides, surmounted by a red conical slatwork and a red lantern, was, on or about the 15th inst., moored in three fathoms water, in the axis of the Jones Island range lights, on the 15-foot patch north of Hooper Island, replacing the red spar buoy now marking that point.

Lat. N. 45° $19'$ $49''$
Long. W. 80° $18'$ $37''$

The buoy will show a fixed white light elevated 7 feet above the water, from a small dioptric lantern. The light should be visible 3 miles, all around the horizon.

From the buoy the south point of Pancake Island bears E. N. E. $\frac{1}{2}$ E., distant 4,000 feet.

3. GAS BUOY ON SPRUCE ISLAND SHOAL.—As a further aid to the navigation of the old channel, a steel gas buoy, painted black, with the words "Spruce Island Shoal" in white letters on the sides, surmounted by a black conical slatwork and a red lantern was, on the 9th instant, moored in 4 fathoms of water, on the south extremity of the shoal extending south from Spruce Island.

Lat. N. 45° $19'$ $52''$
Long. W. 80° $15'$ $48''$

The buoy shows a fixed white light, elevated 7 feet above the water, from a small dioptric lantern, and should be visible 3 miles all around the horizon.

From the buoy McClelland rock beacon bears S. W. by W., distant 1,300 feet, the summit of Carling rock bears E. $\frac{1}{2}$ N., distant 5,800 feet, and the south extremity of Spruce Island bears N. E. $\frac{3}{4}$ N., distant 2400 feet.

4. GAS BUOY ON SEGUIN BANK.—On or about the 19th instant, the platform buoy described in Part I of Notice to Mariners, No. 15, of 1898, marking the south end of Seguin Bank, will be replaced by a gas buoy, painted black, with the words "Seguin Bank" in white letters on the sides, surmounted by a black conical slatwork cage and by a red lantern. The buoy will be moored in four fathoms water, immediately south of the shoalest spot.

Lat. N. 45° $19'$ $21''$
Long. W. 80° $31'$ $30''$

The buoy will show a fixed white light elevated ten feet above the water, from a small dioptric lantern. The light should be visible four miles, all around the horizon.

5. PROBABLE IMPROVEMENT OF BUOY ON KNIGHT SHOAL.—If practicable, the spar buoy marking Knight Shoal will be replaced by the platform buoy removed from Seguin Bank.

6. REMOVAL OF LIGHT-HOUSE FROM HUGH ROCK TO CARLING ROCK AND ESTABLISHMENT OF LIGHT-HOUSE ON COUSIN ISLAND.—It is proposed to remove the light-house now maintained on Hugh Rock to the north portion of the highest part of Carling Rock, during the present season of navigation, and to erect a light-house on the south extreme of Cousin Island. These light-houses will mark the channel south of Pancake Island and will lead from Hooper Island Shoal gas buoy to Spruce Island Shoal gas buoy and will also designate the turning points at Carling Rock and Cousin Island.

7. PROPOSED BUOYS OFF CARLING ROCK AND ON DAVY ROCK.—It is proposed to mark Davy Rock by a black spar buoy, and the north end of the shoal off Carling Rock by a red spar buoy.

8. DISCONTINUANCE OF TEMPORARY RANGE LIGHTS MARKING SOUTH CHANNEL.—The temporary range lights established last spring to mark the south channel, viz: two to mark the channel at Gordon Rock, and two on Harold Point to mark the channel between Carling Rock and Cameron Island, will not be maintained after the 20th instant.

9. LIGHT-HOUSE ON DEPOT ISLAND.—The light-house on Depot Island is completed and will be put in operation this week. It stands on the beach of the island, at its western extremity, and is a square wooden building, with sloping walls, surmounted by a square wooden lantern, the whole painted white. The height from base to vane on the lantern is 28 feet.

Lat. N. 45° $19'$ $6''$
Long. W. 80° $7'$ $10''$

The light will be a fixed white light, elevated twenty-five feet above the level of the water, and should be visible ten miles over an arc of about 180° from S. through E. to N. The illuminating apparatus is dioptric, of the seventh order.

SAILING DIRECTIONS.—Amended sailing directions, to replace those printed in Notice to Mariners, Nos. 15 and 21, of 1898, will be published when the improvements indicated in this notice have been completed. Vessels entering by the North Channel will leave the Jones Island range alignment at the red gas buoy and steer directly for the black one, leaving it 200 feet on the port hand. They will then shape their course to leave Carling Rock beacon or light-house 800 to 1,000 feet on the starboard hand. Inside of Carling Rock, Davy Rock is the only hidden danger.

F. GOURDEAU,

Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries, Ottawa, Canada,
September 16, 1898.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

Pilots, masters, or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notices of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada.

UNITED STATES LIFE-SAVING SERVICE.

NINTH DISTRICT—LAKES ERIE AND ONTARIO—NAME OF STATION, STATE AND LOCALITY.

Big Sandy, N. Y., north side mouth of Big Sandy creek, Lake Ontario.

Salmon Creek, (destroyed by fire.)

Oswego, N. Y., east side entrance of Oswego harbor, Lake Ontario.

Charlotte, N. Y., east side entrance of Charlotte harbor, Lake Ontario.

Fort Niagara, N. Y., east side entrance of Niagara river, Lake Ontario.

Buffalo, N. Y., south side entrance of Buffalo harbor, Lake Erie.

Erie, Pa., north side entrance of Erie harbor, Lake Erie.

Ashtabula, Ohio, west side of Ashtabula harbor, Lake Erie.

Fairport, Ohio, west side entrance of Fairport harbor, Lake Erie.

Cleveland, Ohio, west side entrance of Cleveland harbor, Lake Erie.

Point Marblehead, Ohio, Point Marblehead, near quarry docks, Lake Erie.

Louisville, Ky., falls of the Ohio river, Louisville, Ky.

TENTH DISTRICT—LAKES HURON AND SUPERIOR.

Sand Beach, Mich., inside of Sand Beach harbor, Lake Huron.

Point aux Barques, Mich., near light, Lake Huron.

Grindstone City, Mich., about two miles northeast of Port Austin, and about two miles southeast of Port Austin reef light, Lake Huron.

Ottawa Point, Mich., near light, Lake Huron.

Sturgeon Point, Mich., near light, Lake Huron.

Thunder Bay Island, Mich., west side of island, Lake Huron.

Middle Island, Mich., north end of Middle Island, Lake Huron.

Hammond's Bay, Mich., Hammond's Bay, Lake Huron.

Bois Blanc, Mich., about midway east side of island, Lake Huron.

Vermillion Point, Mich., ten miles west of Whitefish Point, Lake Superior.

Crisps, Mich., eighteen miles west of Whitefish Point, Lake Superior.

Two Heart River, Mich., near mouth of Two Heart river, Lake Superior.

Muskallonge Lake, Mich., near mouth of Sucker river, Lake Superior.

Marquette, Mich., near light, Lake Superior.

Ship Canal, Mich., Old Portage Lake ship canal, three-quarters of a mile from north end, on east bank.

Duluth, Minn., on Minnesota Point, Upper Duluth.

ELEVENTH DISTRICT—LAKE MICHIGAN.

Beaver Island, Mich., near light.

North Manitou Island, Mich., near Pickard's wharf.

Point Betsie, Mich., near light.

Frankfort, Mich., south side entrance of harbor.

Manistee, Mich., north side entrance of harbor.

Grande Pointe au Sable, Mich., one mile south of light.

Ludington, Mich., north side entrance of harbor.

Pentwater, Mich., north side entrance of harbor.

White River, Mich., north side entrance of White lake.

Muskegon, Mich., north side entrance of harbor, Port Sherman.

Grand Haven, Mich., north side entrance of harbor.

Holland, Mich., in the harbor, south side.

South Haven, Mich., north side entrance of harbor.

St. Joseph, Mich., in the harbor, north side.

Michigan City, Ind., east side entrance to harbor.

South Chicago, Ill., north side entrance of Calumet harbor.

Chicago, Ill., about seven miles S. by E. of Chicago river light.

Old Chicago, Ill., in the harbor.

Evanston, Ill., on the north-western University grounds.

Kenosha, Wis., in the harbor Washington island.

Racine, Wis., in the harbor.

Milwaukee, Wis., near entrance of harbor, south side.

Sheboygan, Wis., entrance no harbor, north side.

Two Rivers, Wis., north side entrance of harbor.

Kewaunee, Wis., north side entrance of harbor.

Sturgeon Bay Canal, Wis., eastern entrance of canal, north side.

Bailey's Harbor, Wis., on easterly side of harbor.

Plum Island, Wis., near northeast point of island, two miles northwest of Pilot Island light.

It has been ascertained by careful experiments in drying iron ores that an enormous saving in freights can be made by eliminating moisture from the ores before shipment. Investigations made by the Oliver Mining Co. show that the ores of the Lake Superior region carry in some cases as high as 13.9 per cent. of moisture. Many of the heaviest producing mines have ores carrying 10, 11 and 12 per cent. of water. A great deal of this moisture can be dried out, and there are startling possibilities in the way of saving by not carrying wet ore. The manager of the Oliver company's mines is quoted as stating that his company was shipping this year 90,000 tons of excess water from one mine alone. The figures seem to be ridiculously large and it is very questionable if any means can be devised for taking even a majority of the percentage of the moisture out of iron ore under all atmospheric and weather conditions notwithstanding the tremendous waste of carrying capacity on account of damp ores.



ESTABLISHED 1878.

Published Every Thursday by

THE MARINE RECORD PUBLISHING CO.,

Incorporated.

GEO. L. SMITH, President.

C. E. RUSKIN,	-	-	-	-	Manager.
CAPT. JOHN SWAINSON,	-	-	-	-	Editor.
THOS. WILLIAMS, Chicago,	-	-	-	-	Associate.
CLEVELAND,				CHICAGO.	
Western Reserve Building.				Royal Insurance Building.	

SUBSCRIPTION.

One Copy, one year, postage paid,	-	-	-	\$2.00
One Copy, one year, to foreign countries,	-	-	-	\$3.00
Invariably in advance.				

ADVERTISING.

Rates given on application.

All communications should be addressed to the Cleveland office.
THE MARINE RECORD PUBLISHING CO.,
 Western Reserve Building, Cleveland, O.

Entered at Cleveland Postoffice as second-class mail matter.

CLEVELAND, O., SEPTEMBER 29, 1898.

A FLEET of lake tow barges, consorts and some few schooners for coast service is the latest development. Lake shipyards are in a position to build for the world even if we have to ship a portion of the production by rail or float it in sections to tide water.

It would seem to be the widest and grandest policy for all marine interests to turn their attention towards efforts looking in the direction of abolishing Canadian canal tolls, at least as far as regards the Welland if not also to the lower St. Lawrence system. Our national policy has always been, a-la-Republican, that is the greatest good to the greatest number, and if we can have the Dominion government concede this point or accept the truth of the adage then a great and good step will have been accomplished.

THE Canadians need not get so scared about their timber adjacent to shipping points giving out. The United States has been cutting timber and sawing it into lumber for several years before the Dominion entered into the business. Our forests are somewhat depleted, we admit, but out in British Columbia they, the Canadians, can't throw it away. In any case the United States will from this onward take the wind out of the canvas of the British by producing and selling them the finest sheets of iron and steel and other metals so that if they don't want to sell us timber or lumber they can keep it on their almost useless land.

AN elegant conceit of the Toledo Daily Blade comes in the editors opinion as follows: The Spanish cruiser, the Infanta Maria Teresa, just raised by Hobson, will soon be sent under her own steam to the United States, to be repaired. She is a splendid modern protected cruiser, 340 feet in length, of 7,000 tons displacement. She is larger than was the Maine (6,682 tons,) or than is the Texas (6,315 tons), both second-class battleships, and carries an armament equal to either. She is very fast, too—a 20-knot vessel. Her name will be changed, of course. Uncle Sam will not have the name of a Spanish princess given to one of his war vessels. And we renew the suggestion made some time since, when the work of raising her was undertaken, that she be named the Toledo. The special fitness of this cognomen is that it will be an allusion to her Spanish origin, for this city was named for Toledo in Spain. What is the matter with the sending of a petition to the Navy Department asking for the naming of the vessel after Toledo of the Lakes? As we understand it, it has not been the intention of the Navy Department to change this vessel's name yet the foregoing suggestion is most applicable and we would cheerfully indorse a petition for the change of name. What has the United States to do with an Infanta Maria Teresa anyway? We are a fully and well developed infant in the world's family.

THE ENGLISH LLOYD'S.

It may be news to some people to learn that the business at Lloyd's is no longer confined to marine insurance. During recent years the nature of risks underwritten has been gradually widening in scope, until it now embraces almost every known form of insurance. Fire, accident and burglary insurance are all accepted. A policy covering goods against all risks from, say, a warehouse in London to a warehouse in Sydney or Hong Kong, is very frequently issued, and is found by business men to be a great convenience.

Underwriting members of Lloyds have to pay an entrance fee of £400, (\$2,000) and an annual subscription of twenty guineas. They have also to place in the hands of the committee guarantees for at least £5,000, (\$20,000). These guarantees, as may be imagined, amount to a considerable sum, seeing that of over twenty-five hundred members, subscribers and associates fully one fourth are underwriters. The guarantee fund is vested in trustees and interest is paid on the deposits. The capital sum is refunded to an underwriter three years after his retirement from business. It may be remarked that this guarantee of £5,000, (\$20,000,) applies to the marine risks only which are underwritten by the depositors. Other members of Lloyd's pay an entrance fee of £25 and an annual subscription of seven guineas. Candidates for admission to membership must be recommended in writing by six members, and they are elected by ballot, the voting power being in the hands of the committee.

In addition to the members there are "subscribers" and "associates," the former paying seven guineas, the latter five guineas, annually. Subscribers and associates are not allowed to transact business in the room; they pay for the privilege of entering it and picking up information. All the leading marine-insurance companies are subscribers to Lloyd's, receiving in return for their subscriptions the latest news about ships in which they are interested.

The corporation has agencies at all the leading seaports in the world, the duties of the agents being to transmit to headquarters weekly lists of arrivals and clearances at their ports, which are chronicled in Lloyd's Weekly Shipping Index, a most useful publication for merchants, ship-owners and underwriters. Lloyd's agents also give prompt advice by cable to London of any casualties which may occur within the area they control. They further attend to surveys of cargo damaged in transit when so requested by the importers, and, in cases of wrecks and casualties, devote their energies to the protection of the general interest of underwriters. There is no honorarium other than a few odd "pickings" and out-of-pocket expenses attached to a Lloyd's agency; the privilege of representing the society is sufficient compensation for the time and trouble involved in attending to its business.

Lloyd's controls and works, under the sanction of Parliament, the signal-stations in Great Britain and Ireland. These number forty-two, and range from Dunnet Head and the Butt of Lewis in the north of St. Catherine's Point and the Scilly Islands in the south.

The society has also the management of twenty-nine signal-stations in various British colonies. By means of this arrangement ship owners, merchants and others can obtain the latest information about vessels at a nominal signaling charge of one shilling, plus the cost of cabling or postage, as the case may be. Chambers of commerce, harbor and dock authorities, can receive, by arrangement with Lloyd's regular advice from the signal-stations for publication. A public service is thus effectively rendered by the corporation in its control of signal-stations, and it is easy to recognize the importance, from a national point of view, of the colonial stations, more particularly, being in such efficient and trustworthy hands.

In 1720 charters were granted to the London Assurance and Royal Exchange corporations, and for a full century these two companies, with Lloyd's underwriters, possessed a monopoly of marine insurance in that country. The act conferring the charters excluded all but private underwriters from competing with the two companies, and it was not until 1824 that it was repealed, leaving the door open for the establishment of rival concerns. Since that time numerous competitors have entered the field, but the business of marine insurance has correspondingly expanded, and at the present day, judging by the results annually attained, there is room for all of them. But by virtue of the magnitude of its operations, Lloyd's is still the principal underwriting association in the world.

It appears about time for one of the government departments to issue another wreck chart so as to point out in a graphic manner the dangerous points along the lake shores.

A few wrecks are piled up at Eagle Harbor reef, Lake Superior, and a couple of steamers fetched up there last week. The steamer Colorado will leave her bones there, and only a portion of her general cargo can be recovered. While she is only one of several, it is stated that the Colorado went ashore clearly on top of the steamer Pickands which stranded there a few years ago. The query comes in, why do vessels strand on that point? The Board of Supervising Inspectors of Steamboats, who are supposed to take cognizance of these disasters will not tell us. The Light-House Board don't wish to court notoriety. The Life-Saving Service will not implicate any other department by stating that castaway vessels don't come near enough to them. The Weather Bureau only gives out warnings, and can't stop storms or deflect currents or train pilots. The Hydrographic Office branches, under the auspices, or rather directly under the rules of the Navy Department, do not even pay office rent for the several lake branches and therefore is not in a position to expend even the value of stationery in an investigation, and it is not within the province of the patrol boats of the revenue marine service to find out why cargo carrying boats strand, and so we go on from year to year until we now find that underwriters must do the departmental work of the government. Everyone ought to know how these wrecks and strandings occur. Who's going to tell?

It is now reported that Chicago and Illinois, through the Federal Steel Company, may become directly interested in enormous shipyards which it is proposed will be built in or near New York City. For some time there has been a rumor in circulation to the effect that Andrew Carnegie is behind a project to establish in New York the biggest ship-building yards in the country. He is said to have purchased the right to use Kruppized armor in the construction of war craft, and in all of the talk the Federal Steel Company has been connected with the enterprise. The industry of American shipbuilding is destined to vastly improve within the next few years and the forgoing is but an indication of what must eventuate in the very near future.

LAKE FREIGHTS.

The grain freight market is now taking precedence and both iron ore as well as coal must perforce follow the regular weekly advance in rates. The Duluth grain rate to Buffalo is now quoted at 2¼ cents on wheat, an advance of ¼ cent on last week and equal to an 84 cent ore rate, which however, is held down on account of miners owning tonnage and the chartering done ahead, so that the grain and ore rate show too wide a difference for legitimate business. The Chicago rate to Buffalo is firm at 1¾ cents on corn, a further advance from last week's quotations and one that is now likely to hold as side, or minor ports are also strong, as for instance, Manitowoc to Buffalo, 2 cents; Chicago to Port Huron, 1½ cents, and to Kingston, 3 cents; barley and oats, Milwaukee, 1½ cents on former and 1¾ cents on latter.

Iron ore rates have also advanced to a 5 cent figure all round, or 55 cents, 60 cents and 65 cents from Escanaba, Marquette and Duluth, respectively, with free offerings and a likelihood that even a better rate may obtain in the course of the next ten days, but, even at this rate small vessels can make no money.

Coal rates show no advance, partly because as an up cargo it is considered as ballast and carried at ballast rates, especially in the fall months when heavy weather is experienced, so that for several years past the Lake Superior rate from Buffalo has been quoted at 20 cents for September loading and it is there now, although a 5 cent advance rate from Cleveland is announced to Portage. Thirty cents has been offered, with few takers, also a 5 cent advance, chiefly on account of detention being experienced on these charters in the past. Rates are firm at 25 cents to Lake Michigan ports, from Buffalo.

Lumber rates have advanced all round and elm now pays \$2.50 per M. feet from Manistee to Buffalo; basswood, Manitowoc to Cleveland, \$1.75, with other improvements as noted in our port letters for the week, quoting a shilling advance from all ports, with the market firm.

VESSELS CLASSED.

Vessels classed or rated by the American Shipmasters' Association in the "Record of American and Foreign Shipping," this week are as follows:

American tern, Helen M. Atwood; American tern, Henriette J. Powell; American tern, James Boyce, Jr.; American tern, Nelson E. Newbury; American half brig, Henry B. Cleaves; American schooner, Rachel W. Stevens.

THE PORTAGE LAKE SHIP CANAL.

The work of deepening the channels of the Portage lake ship canals is progressing fairly well, and at the close of the present season there will be a possible twenty-foot channel through Portage river.

Three dredges are engaged in the work of excavating. One is stationed at the Entry, at Cut No. 1, a second is at Cut 4, and the third at the head of Portage river. The contract also covers next season, during which the channel will be widened and straightened. For the present the opening up of the channels at the canal is completed, and the only work necessary will be the removing of the customary sand bar formation at the upper entrance. At this place the depth is about nineteen to twenty feet, and this can be counted upon by mariners. At the present time it is expected there will be no difficulty in boats going through Portage river drawing seventeen feet and through the upper canal vessels requiring nineteen feet will have no trouble.

At Portage Entry the old pier is being put out to a depth of twenty feet of water, or, in other words, is being extended 2,800 feet. The work is being done by Powell & Mitchell of Marquette. Already seven cribs, each 100 feet in length, have been placed and a part of the superstructure completed. Trouble seems to be encountered in securing sufficient labor to rush the work as the firm would wish, the contract calling for the completion of the work in the fall of 1899. At the Lake Superior entrance two breakwater piers are being constructed under a contract with Porter Bros., of Duluth. Already about 700 feet of crib work has been placed on the west side, and a part of the superstructure is completed. Piles for the foundations have been driven for both the east and west structures, and those on the west sides have been sawed at the required depth below low water to receive the cribs. The greater part of the rock filling has also been put in and the work of driving the piles for both piers is nearly completed. This contract is to be completed in the fall of 1900. With these improvements finished, and also the dredging now contracted for, which is to be done in the fall of 1899, there will be a good twenty-foot channel through these canals and with perfect harbor entrances at each end.

At the Lake Superior entrance the breakwater piers will constitute a perfect harbor, with an entrance 400 feet in width and containing a depth of thirty feet of water. This will make the only perfect harbor between the Apostle islands and Marquette, except, perhaps, a lee under Keweenaw Point, and will dispense with the necessity of heavy craft passing around Keweenaw during the stormy season.

The result will be a decided benefit to Portage lake towns and the county generally, as more vessels will use this channel and thus sharpen competition, not to mention the fact that it will become a market to some extent for marine supplies. There is no reason why this change should not go a long way toward paying the way for a coaling dock at Portage lake.

The Portage Lake route is being used more every year as a water-way of the lake, and whenever a high sea is running outside of the point vessels make for Portage Lake soon after leaving the Whitefish Point, and they thus save time and are out of hard weather.

Many boats would rather risk going around the point now, if they are caught out in the lake in a storm, than run for the canal entrance, as it has been considered unsafe for steamers having one or more vessels in tow.

The government has appropriated \$300,000 for the harbor, and it is to be completed by November 1, 1900. The work was commenced early this spring, but much time was taken up in getting the plant installed and in working order. The line of breakwater will extend from the shore some 1,500 feet on each side of the present pier at the entrance to the canal, and will run out in a straight line 800 feet, then turn at an angle, running 2,000 feet on the west side and 1,800 feet on the east side, leaving an opening 400 feet in width for the passage into the harbor.

Small projections will run in for some distance from the ends. The widest part will be 3,000 feet and the distance from the new entrance to the end of the present pier will be some 1,200 feet. The depth of water will be about 30 feet. The bottom is sandy with boulders.

With these improvements completed vessels can run in for safety with gales blowing from any direction and can make the entrance without danger. The rock work in the cribs is packed with stamp sand, which is run between the rocks, filling up the crevices and making a solid mass inside. Besides the rock foundation, there are piles driven eight feet apart on which the crib work rests. The total weight

of iron and steel required to complete the work will be some 1,233,340 pounds. The amount of timber used will be 8,801,580 feet, board measure.

THE INTERNATIONAL CONFERENCE.

A special from our correspondent at Quebec on Wednesday says: The conference commission held another joint session to-day. It is understood that they are still at work on the Alaskan boundary question.

W. C. Edwards, Member of Parliament from Russell county, Ottawa, is here representing the lumber interests of the Ottawa valley, and says the Canadians will never accept the proposition of the American lumbermen to admit high-grade Canadian pine free on condition that Ontario logs be admitted free.

"It would be childish," he said, "for Canadians to agree to anything of the sort. We have no high-grade pine lumber to spare, and even with absolute free trade we could not supply 2 per cent. of the lumber used in the United States market. The Canadian pine is nearly gone, and we will soon be forced to buy our lumber from the States."

ABOLISH WELLAND CANAL TOLLS.

The Toledo Produce Exchange unanimously adopted the following resolutions at a meeting held on Tuesday morning:

To the United States and Canadian Joint High Commission, Quebec, Canada.—The cheapening of transportation rates justly occupies a high and leading position in the minds of men devoted to the study of economics. Its importance as an element of cost demands for it the gravest consideration. The Congress of the United States and the legislators of the states have given the subject most earnest thought. Vast sums of money have been devoted to increasing the facilities of transport, and individual enterprise and capital have eagerly embraced the opportunity to furnish the instrumentalities of transit corresponding to the increased advantage.

One of the features in this procession of improvements has been the exception of tolls on the great Erie canal of 340 miles in length. The Canadian government has expended a greater sum of money on her system of artificial waterways, according to her population, than any other. With a population of 5,000,000 or less, her outlay has been 50,000,000 of dollars, and large sums are to be expended in future projected improvements. It is not presumable that such expenditures are projected with a view of income to the state, but for the promotion and growth of her own and international commerce with the United States. While the commercial communication between the two countries has expanded, by no means has it advanced in the ratio of the increased commerce of the lakes. Naturally, the extreme low carriage cost of $2\frac{1}{2}$ to $2\frac{3}{4}$ c. per bushel on wheat from Buffalo to New York, and a lake freight from Toledo to Buffalo of 1c per bushel, offers a strong competition to the Canadian route. Toledo is a large shipper of corn to Canada, and some of her flour has been sent to London by the way of the Canadian system. The average outturn of Toledo flouring mills is 21,000 barrels per week. Most of this commodity seeking a foreign market, can be turned in that direction, but with present margin of profits of only 5c to 10c per barrel to the miller, the tolls on the Canadian canals have some adverse influence. Corn is a cheap commodity, and must be moved in any direction at minimum rates, and tolls on that cereal have an important bearing.

Canada seeks an alliance with the United States, based upon the reasonable theory of a mutual ownership and improvement of her waterways. A concession of tolls by the Canadian government, as an offering to American commerce, cannot fail to be considered as one more act of comity and fellowship tending to a consolidation of commercial interests.

Under present conditions and for these reasons, the Toledo Produce Exchange believes that the abolition of tolls on the Canadian canals will increase the commerce between the two countries, and therefore invokes the efforts of your honorable commission in that behalf.

A NEW LAKE MICHIGAN LINE.

A new line along the west shore of Lake Michigan, with Kenosha and Waukegan as the main points, will be established by the Goodrich Transportation Co. next season. It is the purpose of the Goodrich company to develop largely a short excursion business to Waukegan, and gardens and picnic grounds will be added as attractions. During the past season Waukegan has had its first steamboat line, the little steamer Faxton stopping there on its way to Kenosha. The amount of business developed by the Faxton has made it evident that there is an opening for large boats running on regular time, and catering to a general excursion business.

MORE NAVAL TONNAGE.

The Navy Department will open bids October 3 for the construction of four harbor defense vessels, for which Congress made an appropriation May 4. They are to be of the monitor type, each having one or two turrets, and to cost, exclusive of armament, not more than \$1,250,000. The bids are to be on the department's designs, and it is stipulated that the bidders designate the time within which the contract for each vessel will be completed. No bid will be received which names a time greater than 27 months. The penalty which will be imposed in case the contracts are not completed within the time limit is \$300 a day for the first six months succeeding the expiration of that period, and \$600 a day for every day thereafter, Sundays in both cases being excepted.

Each vessel is to be 225 feet long on the load water line, and extreme breadth 50 feet. They are to have a mean draft of about $12\frac{1}{2}$ feet with a normal displacement of about 2,700 tons. The total coal capacity, loose stowage, is placed at about 200 tons. The hull is to be of steel, not sheathed, with double bottom and close watertight sub-divisions. One military mast is to be fitted with fighting and searchlight tops. The hull will be protected to the water line by a side armor belt of a maximum thickness not to exceed 11 inches, and a mean depth of five feet. The barbettes for the 12-inch guns will also have an 11-inch armor belt. The turrets are to be of the balanced type, with armor 10 inches thick. A protected deck will extend the full length of the vessel, and will have an armor of not less than $1\frac{1}{2}$ inches.

Each vessel is to be driven by twin screws. The engines, of which there will be two, are to be of the vertical, triple-expansion type in one water-tight compartment. There will be four boilers of the water-tube type, constructed for a working pressure of 250 pounds, and they are to be placed in one water-tight compartment.

The battery will be composed of two 12-inch breach-loading guns, mounted in an armored barbette turret on the mid-ship line forward; four 4-inch rapid-fire guns in broadside on the superstructure deck, and a secondary battery of seven rapid-fire guns. The weight of the battery of guns with their mounts and carriages will be about 177 tons.

If on trial the average speed shall equal or exceed a speed at sea of 12 knots an hour for two consecutive hours, the vessel will be accepted so far as the speed is concerned. A reduction of \$5,000 for a quarter-knot deficiency of speed between 12 knots and $11\frac{1}{2}$ knots, and a reduction of \$10,000 a quarter-knot deficiency from $11\frac{1}{2}$ to 11 knots, will be made. If the speed falls below 11 knots an hour, the vessel may be accepted or rejected at the discretion of the Secretary of the Navy.

AMERICAN VESSELS WANTED.

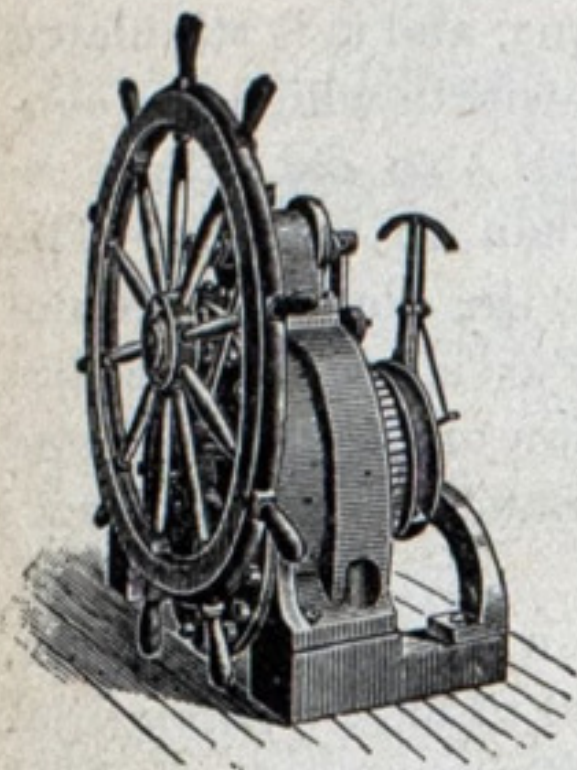
Mr. Reymershapper, of Galveston, Tex., president of the Texas Star Flour Mills and other manufacturing industries, called this week at the Treasury Department, Washington, D. C., to learn whether he could not obtain some modification in the existing regulations regarding the employment of ships of American registry in the coastwise trade. It seems that Mr. Reymershapper is a large shipper of flour of Porto Rico and other points in the Caribbean Sea. Last year we shipped fifty thousand barrels of flour to Porto Rico, while that state was a Spanish possession, and it was possible for his firm to put the product of their mills in Porto Rico in foreign bottoms, but now that that territory has passed under the control of the United States he can no longer do so.

As part of the United States the island is amenable to the regulations governing the coastwise trade. These laws make it prohibitive to ship cargo to Porto Rico in any other than vessels of American registry. The shipper represented to the Treasury officials that he had been unable, after the most diligent search, to find a single vessel of American registry which could be chartered or purchased at this time, and that in consequence he was at his wit's ends to know what to do. The anomaly was presented that it was impossible for him to ship the product of an American mill to an American port because of the lack of vessels flying the American colors. The Treasury officials were unable to afford him any relief, though the justice of his petition was manifest, and he left Washington for New York still in search of an American ship.

The occurrence emphasizes the necessity in the opinion of this shipper for Congressional action in matter of encouraging the American merchant marine, and concerted action in this direction will be taken by the merchants interested towards getting Congress to remedy the evils complained of.

When the lake fleet of schooners get down there and some have already started, it is possible that Mr. Redmershapper can charter or purchase all the tonnage of this description that he cares to but it is safe to say that his bank account will suffer in their up keep.

Queen City Patent Hydraulic Steerer.



The best and most reliable
Generates no heat in pilot house.
Has large hand wheel.
Can be changed from power to hand steering instantly.
A favorite with pilots.

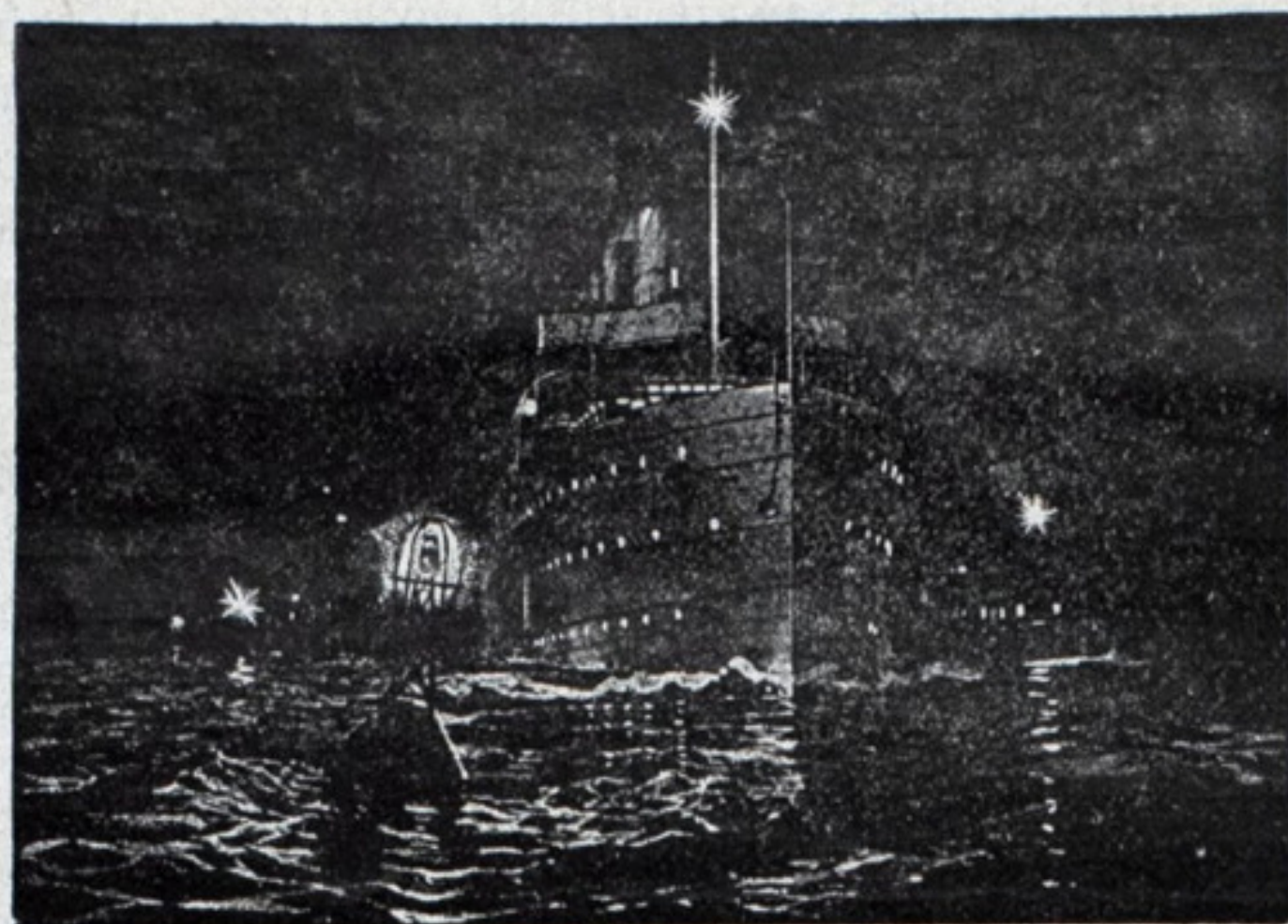
Send for References.

Queen City Engineering Co.

BUFFALO, N. Y.

Pintsch Gas Lighted Buoys.

Adopted by the English, German, French, Russian, Italian, and United States Light-House Departments for channel and harbor lighting.
Over 800 gas buoys and gas beacons in service.



Burn Continuously

from 80 to 365 days and nights without attention, and can be seen a distance of six miles.

Controlled by

THE SAFETY CAR HEATING AND LIGHTING CO.

160 Broadway, New York City.

Straits of Mackinac Chart

The Hydrographic Office has just issued a new survey of the Straits of Mackinac, extending from Sturgeon Point and Thunder Bay on the East, to a meridian running through Point Betsie on the West.

This survey is the latest and best. The chart is on a large scale, measuring about 3x4 feet. Price \$1.00.



THE MARINE RECORD,
Western Reserve Building,

agents for all Hydrographic Office Charts and publications.

WM. WILFORD'S

Matchless Waterproof Cloth
...and Societe Anonyme De Veluwe,
(Japan Paint).

EDWARD A. BUNKER, Sole Agent,

20 BROAD STREET.

...NEW YORK CITY.

W. A. McGILLIS & Co.

DREDGING.

57 WADE BUILDING. CLEVELAND, OHIO.

MARITIME LAW.

THE EUGENE.

(Circuit Court of Appeals, Ninth Circuit, May 12, 1898.)

1. APPEAL AND ERROR—FINALITY OF DECREE.—A decree in admiralty, awarding libelants a definite sum, adjudging that a maritime lien exists therefor, and directing the sale of the vessel and payment of the proceeds into the registry to await the further order of the court, is a final appealable decree.

2. SAME—MARITIME LIENS—BREACH OF CONTRACT.—There can be no maritime lien against a vessel for breach of contract of carriage, where she never in fact entered on the performance thereof, and neither the libelants nor their baggage were ever received on board, or placed in the care or control of the master. 83 Fed. 222, affirmed.

Appeal from the District Court of the United States for the Northern Division of the district of Washington.

Before Gilbert and Ross, Circuit Judges, and Hawley, District Judge.

Ross, Circuit Judge. The appellant is claimant of the steamboat Eugene, and brings this appeal from the decree of the court below against the steamboat and in favor of the libelants and of Walter M. Cary, Fred M. Lyons and Edward J. Knight, named in the decree as interveners, each in the sum of \$800, and directing that a writ of venditional expense issue against the vessel to satisfy the decree, with costs. Exceptions to the original libel having been sustained (83 Fed. 222), the libel was amended. As amended, it alleges, in substance, that the defendant Portland & Alaska Trading and Transportation Co. was, during the times therein mentioned, a common carrier by water of passengers, baggage and freight between the city of Seattle, Wash., and Dawson City, on the Yukon river, one E. B. McFarland being its general manager, and one C. W. Gould its transportation agent; that during all of the time mentioned the trading and transportation company owned and operated, in connection with its said business, the steamboat Eugene, and also operated in the same connection, a steamship known as the Bristol; that on, prior and subsequent to August 11, 1897, the Eugene and the respondent company caused it to be publicly and extensively advertised that the Eugene, in tow of the Bristol, would leave Seattle for Dawson August 23, 1897, and would transport passengers to the number of 350 or less, including their baggage and freight, not to exceed 1,500 pounds each, and would reach Dawson City not later than September 15, 1897; that, relying upon the good faith

of those advertisements, and believing those representations and others of like effect to be true, the libelants on or about August 19, 1897, made and entered into a contract with the steamer Eugene, wherein and whereby that boat undertook and agreed to carry the libelants from the city of Seattle to Dawson City, and to leave Seattle on the voyage on the 24th day of August, 1897, and to reach Dawson City not later than September 15th of the same year; that the contract further provided that the Eugene should leave Seattle on the voyage in tow of the steamship Bristol, and should be towed by the Bristol from Seattle to the port of St. Michaels, Alaska, from which place the Eugene should continue the voyage alone up the Yukon river to Dawson City; in consideration of all which each of the libelants paid for passage on said steamer Eugene, with 1,500 pounds of baggage, the sum of \$300 and received tickets for such passage. The amended libel further alleges that on the 24th day of August, 1897, the Eugene entered upon the performance of the alleged contract, and left the city of Seattle in tow of the Bristol, and undertook to carry the libelants and other passengers over the whole of the said voyage, and proceeded thereon 600 or 700 miles on the high seas to the coast of Alaska, where she abandoned the voyage, and refused to proceed further thereon. It is alleged that the libelants were landed at Victoria, B. C., each of whom was thereby damaged in the sum of \$1,000 by reason of loss of outfit, loss of time and passage money. After the filing of an answer to the amended libel by the claimant, Walter M. Cary, Fred M. Lyons, and Edward J. Knight served upon the proctors for the claimant a petition in intervention, claiming the same relief against the steamboat Eugene upon a precisely similar state of facts; in respect to which intervention the respective parties stipulated that it should abide the result of the trial of the issue between the libelants and the claimant. One C. Hennigar also intervened in the cause for repairs made upon the Eugene subsequent to the libelant's claims, but afterwards that intervention was, by stipulation of the respective parties, eliminated from consideration. The decree awarded damages in favor of each of the libelants and interveners in the sum of \$800, and further decreed that the vessel libeled be sold, and the proceeds paid into the registry of the courts, after deducting the costs of sale, there to await the further order of the court in respect to their distribution.

The appellees, claiming that the decree is not a final one,

move to dismiss the appeal on that ground. There is nothing in the point. The decree awards a definite sum to each of the libelants and interveners, decrees that a maritime lien exists therefor upon the Eugene, and directs the execution of the decree by the sale of the boat by the marshal under the admiralty process of the court. Such sale would divest the claimant of all title to the vessel. The direction that the marshal pay the proceeds into the registry of the court, there to await the further order of the court in respect to their disposition, was a mere incident. The merits of the controversy between the parties remained concluded by the decree, from which any dissatisfied party had the right of appeal. *Whiting v. Bank*, 13 Pet. 6; *Forgay v. Conrad*, 6 How. 204; *Withenbury v. U. S.*, 5 Wall. 819; *Hill v. Railroad Co.*, 140 U. S. 52, 11 Sup. Ct. 690; *The Alert*, 9 C. C. A. 390, 61 Fed. 115. Hennigar was not a party to the proceedings sought to be reviewed. His intervention was, by the stipulation of all of the parties, withdrawn from consideration. See *Gilfillan v. McKee*, 159 U. S. 303, 16 Sup. Ct. 6.

In respect to the merits, but little need be said. The libels are based upon alleged contracts by which, in consideration of the payment of \$300 each, the steamboat Eugene undertook and agreed to transport the libelants and interveners, with 1,500 pounds of freight each, from the city of Seattle to Dawson City. The difficulty in the way of affirming the decree (apart from the question raised as to the amount of damages awarded) is that the proof wholly fails to show that the Eugene ever undertook or agreed to transport either of the libelants, or interveners from Seattle to Dawson City. On the contrary, the proof shows, without conflict, that the Eugene was to transport them from St. Michaels, Alaska, to Dawson City only. Upon the performance of that undertaking the Eugene never entered, nor did she ever receive on board either of the libelants or interveners, or any of their freight or baggage. We can discover no ground upon which a lien upon that boat can be sustained in favor of the appellees, or either of them. Decree reversed, and cause remanded for further proceedings not inconsistent with this opinion.

THE small steamer Queen of the Lakes, while lying at South Manitou Island for shelter Sunday evening, caught fire and burned to the water's edge. Nothing was left but the iron hull, which is still afloat. No lives were lost, but the crew could not save their effects.

THE INTERNATIONAL MARITIME CONFERENCE AT ANTWERP.

(From Fairplay, London.)

On the 29th inst. and the following two days an International Maritime Conference will be held at Antwerp. The subjects for discussion are: Unification of maritime law (1) as to the law of collisions at sea; (2) as to limitation of shipowners' liability.

The conference will be attended by members of the International Maritime Committee, and by delegates of the National Committees or Associations which have been founded in the last two years in England, Germany, France, Holland, Belgium and Norway, to promote uniformity of mercantile marine law amongst the various maritime countries. We have previously given some information as to the aims and methods of working the International Maritime Committee. The chief idea of this body is that those who wish to obtain practical results by means of the unification of maritime law should keep their efforts within strict limits, and restrict themselves to certain matters clearly defined which seem ripe for solution. On the other hand the Committee is of the opinion that such reform cannot be achieved merely by meetings of professors and theorists, but that practical men directly interested in the matters should take the business in hand. Guided by these views the Committee has succeeded in getting established in various countries National Associations or Committees, the members of which are leading shipowners, underwriters and lawyers.

In England the committee has met with the warm sympathy of the International Law Association, under whose protection it was created. This association has formed a Maritime Law Committee in order to communicate with the International Maritime Committee. The English Committee thus appointed consists of a President, Sir Richard Webster, Attorney-General; Vice-President, Mr. Justice Phillimore; Hon. Secretaries, Mr. Carver, Q. C., and Dr. Stubbs; members, Mr. Charles McArthur, M. P., Mr. W. Arnold, Dr. Barclay, Mr. T. C. Danson, Mr. K. W. Elmslie, Sir T. Evans, M. P., Mr. Gray Hill, Mr. G. J. H. Hogg, Colonel Hozier,

Mr. T. R. Miller, Mr. Douglas Owen, Dr. F. W. Raikes, Q. C., and Alderman W. D. Stephens.

The Foreign Committees are under the presidency of: In Germany, Dr. Sieveking, President of the Hamburg Hanseatic Court; in France, the Minister of Justice (hon. chairman); in Belgium, Mr. Beernaert, ex-Belgian Premier, and now President of the Belgian Chamber of Representatives; in Holland, Mr. Rahusen, senator of the kingdom at Amsterdam, and in Norway, Mr. Platou, of the University of Christiania. The formation of National Committees in the United States and Italy is expected.

Questions are to be put before the Antwerp Conference after having been discussed in the various National Associations. With the queries we print the answers given to them by the above-named British Committee.

1. In case of collision by inevitable accident, should each bear his own loss? If so, should the case of one ship at anchor and one under way be made an exception to the rule?

Yes. No difference should be made if the accident is inevitable.

2. Should a collision where the fault is inscrutable be treated on the same basis as inevitable accident?

If inscrutable means "that fault causing the collision is not established against either party," yes.

3. If the collision is caused by fault of one vessel, should the whole damage be supported by the owner of the ship on board of which the fault was committed?

Yes, subject to Answer to Question 11.

4. What effect ought the presence of a compulsory pilot to have upon liability in case of collision?

The majority of the Committee are in favor of abolishing the present protection afforded by British law in the cases of the employment of a pilot compulsorily.

5. What effect ought the fact that one colliding ship is in tow to have upon liability?

In principle the ship towed should be responsible for the damage resulting from a collision which is occasioned by the fault of the tug towing her under a contract of towage, but not when towing as a salvor.

6. Where both ships are in fault, how ought the damage (a) to the ship, (b) to the cargo to be borne? Ought those in fault to be held jointly and severally liable?

The majority of the Committee are of opinion that the total damage to the ships where both ships are to blame should be apportioned by the Court, having regard to the degree of fault. The liability of the carrying ship to her

cargo depends upon her contract, the liability of the other ship to that cargo should be in the same proportion as her liability to the ship in the case of damage to ship. Those in fault ought not to be held jointly and severally liable.

7. Ought the damages in cases of collision to constitute a complete reparation for the damage suffered?

In principle, yes.

8. Ought actions for damage by collision to be subject to the necessity of a "protest" or any other preliminary formality?

No.

9. Ought the time to be limited within which actions of collision may be brought?

No, provided due diligence be used, and this should be matter for the appreciation of the tribunal.

10. Is the time ripe for an examination and settlement of provisional and precautionary measures to which it is necessary to have recourse in order to secure the claims arising out of collisions? What form should the securities take?

The English form of procedure by way of arrest of the ship and taking of bail offers the best form of security.

11. Should the liability of the shipowner be a personal liability, and, if so, should it be limited, and to what extent? Should it be restricted to the ship, including the freight and any property of the shipowner remaining in the ship after the collision?

The liability of the shipowner should be personal; it should be limited, and the best form of limitation is a fixed value per ton of his ship.

As will be seen, the English Committee proposes the alteration of English law on two points, first, in the case of collision where both are to blame, and, secondly, in the case of compulsory pilotage, maintaining on the other points that the present British law embodies the best principles. It is confidently expected that at least on matters of collision the Antwerp conference will come to some international understanding which may lead to unification of the law. At all events, it is certain that this unification is a need generally felt at the present time, and that all efforts made in this direction will be welcomed by those interested in maritime business.

J. A. Mitchell & Co. have finished their dredging contract at Ludington. There is now a uniform depth of 20 feet entire length of the channel.

TOBIN BRONZE

(Trade-Mark Registered.)

Tensile strength of plates one-quarter inch thick, upward of 78,000 lbs. per square inch. Torsional strength equal to the best machinery steel. Non-corrosive in sea water. Can be forged at cherry red heat. Round, Square and Hexagon Bars for Bolt Forgings, Pump Piston Rods, Yacht Shafts, etc. Rolled Sheets and Plates for Pump Linings and Condenser Tube Sheets, Centerboards, Fin Keels and Rudders.

The Ansonia Brass & Copper Co.

SOLE MANUFACTURERS,

Send for Pamphlet.

19-21 Cliff St., NEW YORK.

INCORPORATED 1794.

Insurance Company of North America

CAPITAL, Paid up in Cash,	-	-	-	-	\$3,000,000.00
ASSETS,	-	-	-	-	10,023,220.93

CHARLES PLATT, President.

GREVILLE E. FRYER, Sec'y and Treas.

T. HOUARD WRIGHT, Marine Secretary.

EUGENE L. ELLISON, Vice President.

JOHN H. ATWOOD, Assistant Secretary.

Lake Marine Department, GEORGE L. McCURDY, MANAGER, CHICAGO, ILL.

MARINE AND INLAND INSURANCE.

Atlantic Mutual Insurance Co.

Organized 1842.

Office 51 Wall Street, NEW YORK

Insures against Marine and Inland Transportation Risks and issues policies making Loss Payable in England.

Assets over \$10,000,000 for the Security of its policies.

The profits of the Company revert to the assured, and are divided annually upon the premiums terminated during the year; thereby reducing the cost of insurance. For such dividends, certificates are issued bearing interest until ordered to be redeemed, in accordance with the charter.

A. A. RAVEN, Pres.

F. A. PARSONS, V. P.

CORNELIUS ELDERT, 2d V. P.

THEO. P. JOHNSON, 3d V. P.

J. H. CHAPMAN, Sec'y.

Chas. E. & W. F. Peck,

58 William Street, New York City.

Royal Insurance Building, Chicago, Ill.

C. T. BOWRING & CO.

5 and 6 Billiter Avenue, E. C., - London, England.

Insurance

BROWN & CO., - 202 Main Street, Buffalo, N. Y.

PARKER & MILLEN, 15 Atwater Street, W., Detroit, Mich.

J. G. KEITH & CO., - 138 Rialto Building, Chicago, Ill.

LA SALLE & CO., Board of Trade Building, Duluth, Minn.

Are prepared to make rates on all classes of Marine Insurance on the Great Lakes, both CARGOES AND HULLS.

NEW YORK.
PHILADELPHIA.
BOSTON.

BALTIMORE.
SAN FRANCISCO.
NEW ORLEANS.

Johnson & Higgins,



Average Adjusters,
And
Fire and Marine
Insurance.

Special Facilities for Placing Marine Lines.

Prudential Bldg.

BUFFALO, N. Y.

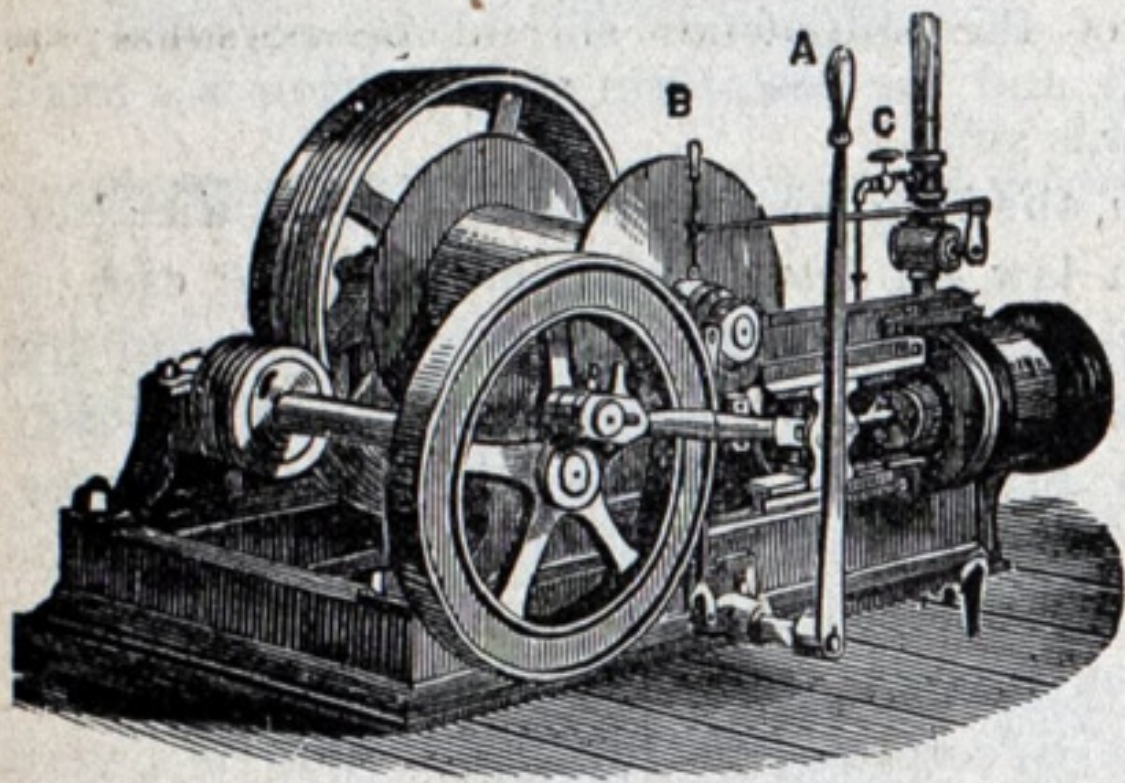
For Stationary, Portable, Traction Engines, Tugboats, &c. Thoroughly Reliable - Perfectly Automatic. JENKINS BROS., - Selling Agents, NEW YORK, BOSTON, PHILA., CHICAGO.

A. J. MORSE & SON.

DIVING APPARATUS
 140
CONGRESS ST. BOSTON.

WILLIAMSON BROS.,

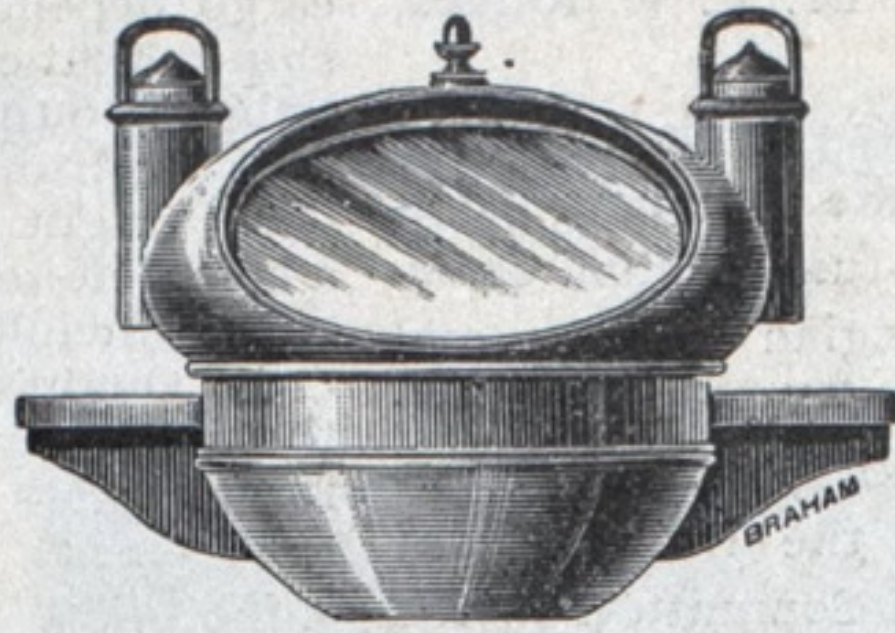
COR. RICHMOND AND YORK STS.,
Philadelphia, Pa.



HOISTING and SHIP ENGINES
STEERING ENGINES.



With either Fractional, Spur or Worm Gear of
Various Patterns to Suit all Purposes.



FRANK MORRISON,
 Compass Adjuster
 and manufacturer of
 Nautical Instruments
 Compasses, Barometers, Patent Logs, Binnacles, Steam
 Gauges, Marine Glasses, Engine Indicators.
 All Nautical Instruments Carefully Repaired.
 OFFICE WITH UPSON, WALTON & CO., 161 RIVER ST.,
 CLEVELAND, O.

A Valuable Series
of....

Nautical Works.

ELEMENTARY SEAMANSHIP. By D. Wilson Barker. Illustrated; 12 mo.; cloth; \$2.00.

KNOW YOUR OWN SHIP. A simple explanation of the stability, construction, tonnage, and freeboard of ships. Specially arranged for the use of ships' officers, superintendents, draughtsmen, and others. By Thos. Walton, naval architect. Lecturer to ships' officers, government navigation school. Illustrated; 12 mo.; cloth; \$2.00.

NAVIGATION. Theoretical and practical. By D. Wilson-Barker, R. N. R., and William Allingham. Illustrated; 12 mo.; cloth; \$1.50.

LATITUDE AND LONGITUDE. How to find them. By W. J. Millar, C. E. With diagrams; 12 mo.; cloth; \$1.00.

PRACTICAL MECHANICS. Applied to the requirements of the sailor. By Thos. MacKenzie. Illustrated; 12 mo.; cloth; \$1.50.

A MEDICAL AND SURGICAL HELP FOR SHIPMASTERS. Including first aid at sea. By William J. Smith. \$2.25.

HINTS ON THE LEGAL DUTIES OF SHIPMASTERS. By Benedict W. Ginsburg, M. A., LL. D., barrister-at-law. \$1.75.

Copies of any of the above books, or any others relating to steam power or shipbuilding, in any of their details, can be had by addressing



The Marine Record,
 Third Floor, Western Reserve Building,
 Cleveland, Ohio.

Paddle Wheel Machinery

Our knowledge of river navigation is earned through long experience and exceptional opportunity. We design and build the *entire and complete* outfits of driving machinery for powerful light draft vessels, having the best of modern shop facilities to aid us in doing *all* the work. Write to us before you act.

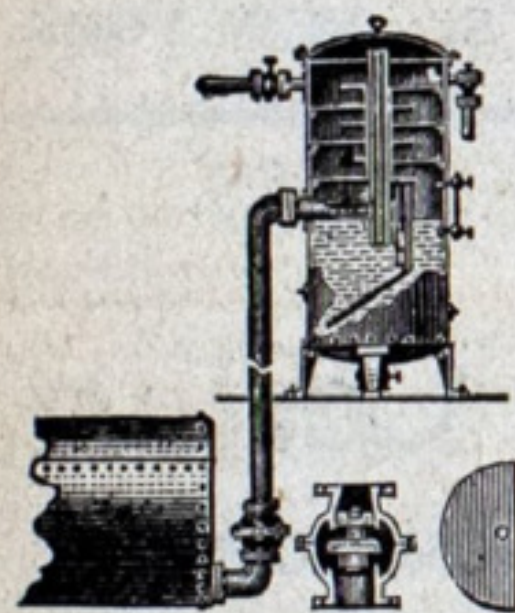
MARINE IRON WORKS
 Station A. CHICAGO.

Maurice & Williams,
 COMPASS ADJUSTERS,
 AND NAUTICAL EXPERTS.

ROOM 13,
 240 SOUTH WATER STREET.
 CHICAGO.
 'PHONE, 273 MAIN.

Compasses adjusted for deviation and deviation tables supplied. Great facilities for doing the work by day or night, in an hour or two.

Instruction given in Navigation and Nautical Astronomy. Correct magnetic courses furnished for all parts of the lakes. Repairing of nautical instruments attended to.



Buffalo Feed Water Heater AND PURIFIER.

Made in all Sizes and to Suit all Conditions.

ROBERT LEARMONTH,

Send for Catalogue. 200 Bouck Ave., BUFFALO, N. Y.

Boats for Amateur Builders.



All designs shown in my new **ALBUM OF DESIGNS** to scale as indexed or enlarged full size very cheap. **SPECIAL DESIGNS TO ORDER.** Patterns, Moulds and Instructions to Amateur Builders, Small Steam and Sailing Craft Built and Rigged entirely or in part. Stems and Stern Posts, Keels, Frames furnished worked in the wood. All kinds of boats set up in frame and shipped "knockdown" to any part of the world.

SEND 50 CENTS FOR 72-PAGE "ALBUM OF DESIGNS."

FRED W. MARTIN, Yacht Designer, North Chicago, Ill., FORMERLY RACINE, WIS.

Youghioghenny River Coal Co.

Miner and Shipper of

OCEAN,
 YOUGHIOGHENY
 GAS AND STEAM

COAL.

General Office:

Erie, Pa. Long Distance 'Phone 409.

Shipping Docks:

Ashtabula, O. Long Distance 'Phone 76.

VESSELS FUELED AT ALL HOURS

ELECTRIC LIGHT.

WITH OCEAN COAL ONLY,
 BY STEAM LIGHTER OR CAR DUMP.

The Cuddy-Mullen Coal Co.

Miners and
 Shippers of

STEAM COAL

FUELING DEPARTMENT
 FACILITIES. ❖ ❖ ❖ ❖

CLEVELAND HARBOR.—Car Dumper; Eight Pockets, 1000 Tons Capacity; Lighter Steam Derricks.

DETROIT RIVER BRANCH.—Amherstburg: Four Pockets; Three Steam Derricks.
 SANDWICH—Fourteen Pockets and Two Steam Derricks.

"SOO" RIVER BRANCH.—Two Docks, (Formerly known as the Anthony and Watson Docks,) Equipped with Pockets and Steam Derricks.

GOOD
 COAL.

COURTEOUS
 ATTENTION

QUICK
 DISPATCH.

General Offices, Perry-Payne Bldg., Cleveland, O.

THE W. L. SCOTT COMPANY,

ERIE, PA.

WHOLESALE DEALER IN

Shamokin, Wilkesbarre Anthracite,
 Youghioghenny, Mansfield, Pittsburg

Vessel Fueling a Specialty

by steam lighter or car dump,
 at all hours. Electric light.

MAIN OFFICE: SCOTT BLOCK. LONG DISTANCE 'PHONE 440.

FUELING OFFICE: CANAL DOCK. LONG DISTANCE 'PHONE 320.

...Coals

THE CHASE MACHINE COMPANY, ENGINEERS AND MACHINISTS.

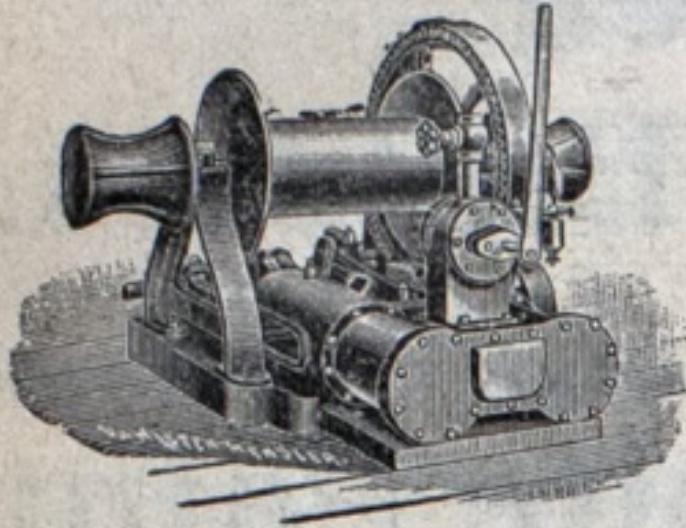
MANUFACTURERS, UNDER THE CHASE PATENTS, OF

Fog Whistle Machines, Hoisting Engines, Steering Engines, Automatic Towing Engines,
Power and Drop Hammers, and other Machinery. Engineers' Supplies and General Jobbing.

111 ELM STREET.

TELEPHONE, MAIN 994.

CLEVELAND, O.



Dock and Deck Hoists

ALL KINDS OF

Machinery and Friction Hoists.

Send for Prices
and Circulars.JACKSON & CHURCH,
Saginaw, Mich.

John E. Thropp & Sons' Co.

BUILDERS OF

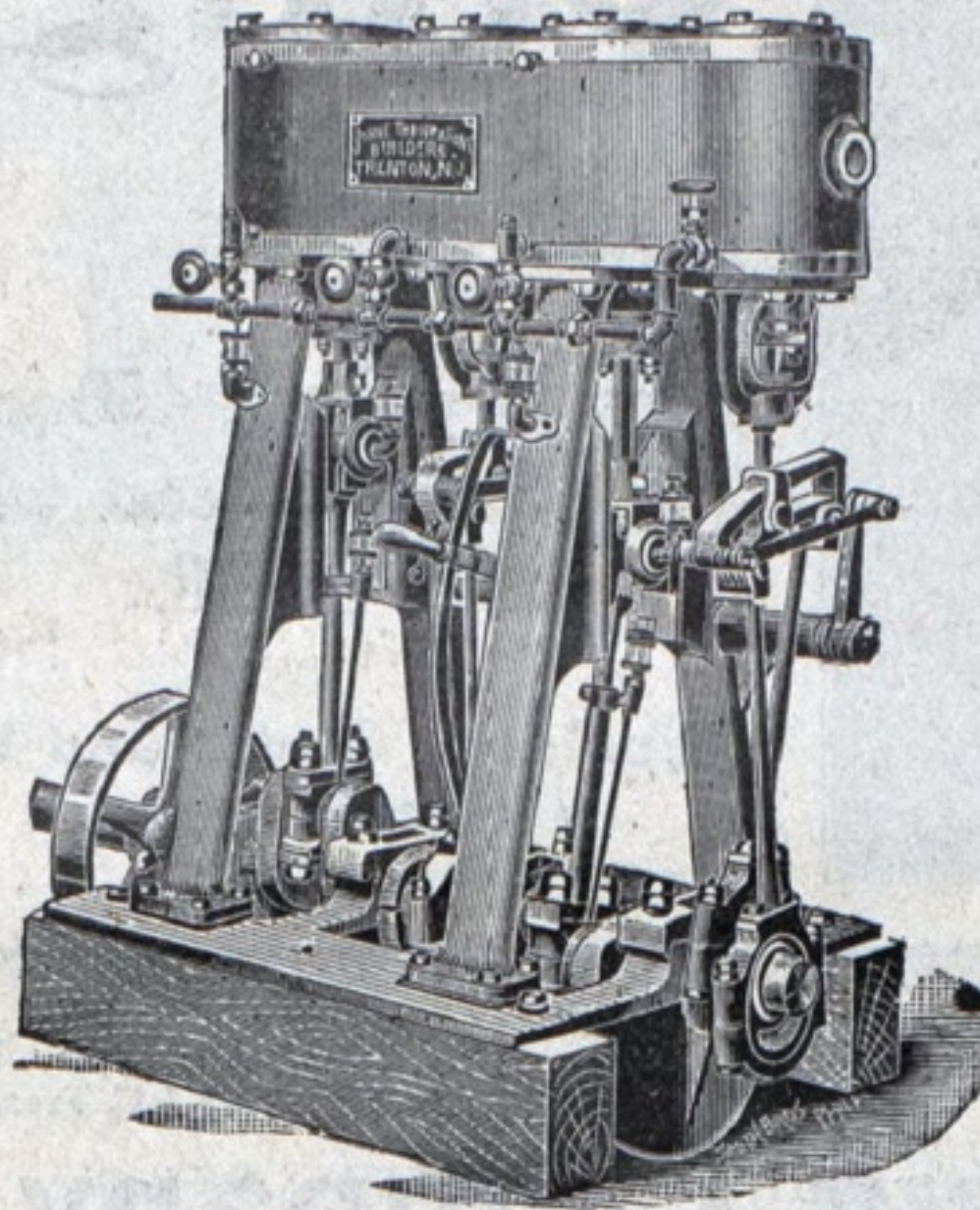
Compound and Triple Expansion

ENGINES,

Boilers, Surface Condensers, Propeller
Wheels, Etc.Contracts taken for yachts and tugs
complete. Send for photographs of En-
gines and descriptive pamphlet.

Works on Delaware & Raritan Canal Basin.

TRENTON, N. J.

No. 8
Beck Patent
Steam and
Hand Steering
Gear.BUILT BY
Pawling & Harnischfeger,
Milwaukee, Wis.Simplest,
Strongest
and most
Reliable.
Changed
from Steam
to Hand or
back by one
lever in less
than one
Second.

DONNELLY CONTRACTING CO.

896 ELLICOTT SQUARE,

BUFFALO, N. Y.

CONTRACTORS AND CONSULTING ENGINEERS,
HARBOR AND CANAL WORKS, ETC.

BARRY'S—CHICAGO.

....DON'T FORGET THAT....

Barry Bros.' Independent Tug Line

Have a Wrecking Outfit. We have purchased the
Grummond Wrecking Appliances, and are prepared
to offer our patrons good service.Office, 240 South Water Street.
TELEPHONE, MAIN 273.

Three Long Whistles Call our Tugs.

SHERIFFS MFG. CO.

ESTABLISHED 1854.



MILWAUKEE, WIS.

FRONTIER IRON WORKS, Detroit Mich. MARINE ENGINES.

SILBAR'S PNEUMATIC JACKET.



Life Preserver and Swimming Apparatus.

A simple contrivance, easy to adjust and a self
teacher. Numerous tests made by the Life-Saving
Crew of Milwaukee have demonstrated its superior-
ity over cork jackets in point of buoyancy. Is strictly
reliable and is built strong and durable.

WRITE FOR PRICES AND CATALOGUE

of full line of Jackets and Rubber Storm Suits. We
can fully equip all Life-Saving Crews and Mariners
in general.

THE LION TAILORING CO.,

147 Reed St.

Milwaukee.

J. H. OWEN, Pres.,
Chicago.F. H. VAN CLEVE, Sec.,
Escanaba.Capt. GEO. BARTLEY, Supt.,
Escanaba.

Escanaba Towing and Wrecking Co. ESCANABA, MICH.

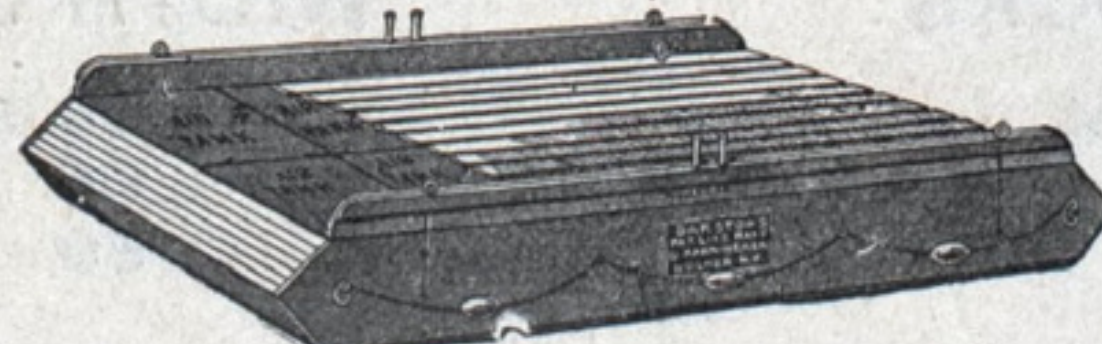
Tugs, Lighters, Steam Pumps, Hawsers, Hydraulic Jacks and Diving Appliances always ready

TUG MONARCH—Engine Compound, Cylinder 16 and 30 in. diameter, 30 in. stroke, steam pressure al-
lowed 125 pounds. TUG DELTA—Cylinder 20 by 22, steam pressure allowed 105 pounds.
TUG OWEN—Cylinder 20 by 20, steam pressure allowed, 104 pounds.

CENTRIFUGAL PUMPS.

SEVEN AND FOURTEEN INCH SUCTION.

NEVERSINK CORK JACKET AND LIFE BELT.

Warranted 24 lb. Buoyancy and full Weight of Cork, as required by U. S. Inspectors. Consolidated Cork
Life Preservers. Superior to all others. Rings Buoys and Fenders. SAFEST CHEAPEST.
Approved and adopted by U. S. Board of Supervising Inspectors.
Also adopted by the principal Ocean, Lake and River Steamer Lines as
the only Reliable Life Preserver. Vessels and trade supplied. Send for
Catalogue.
Awarded four medals by World's Columbian Exposition.METALLIC
and
WOODEN
LIFE
BOATS.

Metallic Life Rafts, Marine Drags.

Manufacturer of Woolsey's Patent Life Buoy, which is the lightest,
cheapest and most compact Life Raft known. Send for illustrated cata-
logue. Get our prices before buying elsewhere.

D. KAHNWEILER, 437 Pearl St., New York City.

VESSEL SUPPLIES. Tel. Main 3411.

D. C. DEEGAN,

Meats,
Groceries and
Provisions.

24 Rush Street.

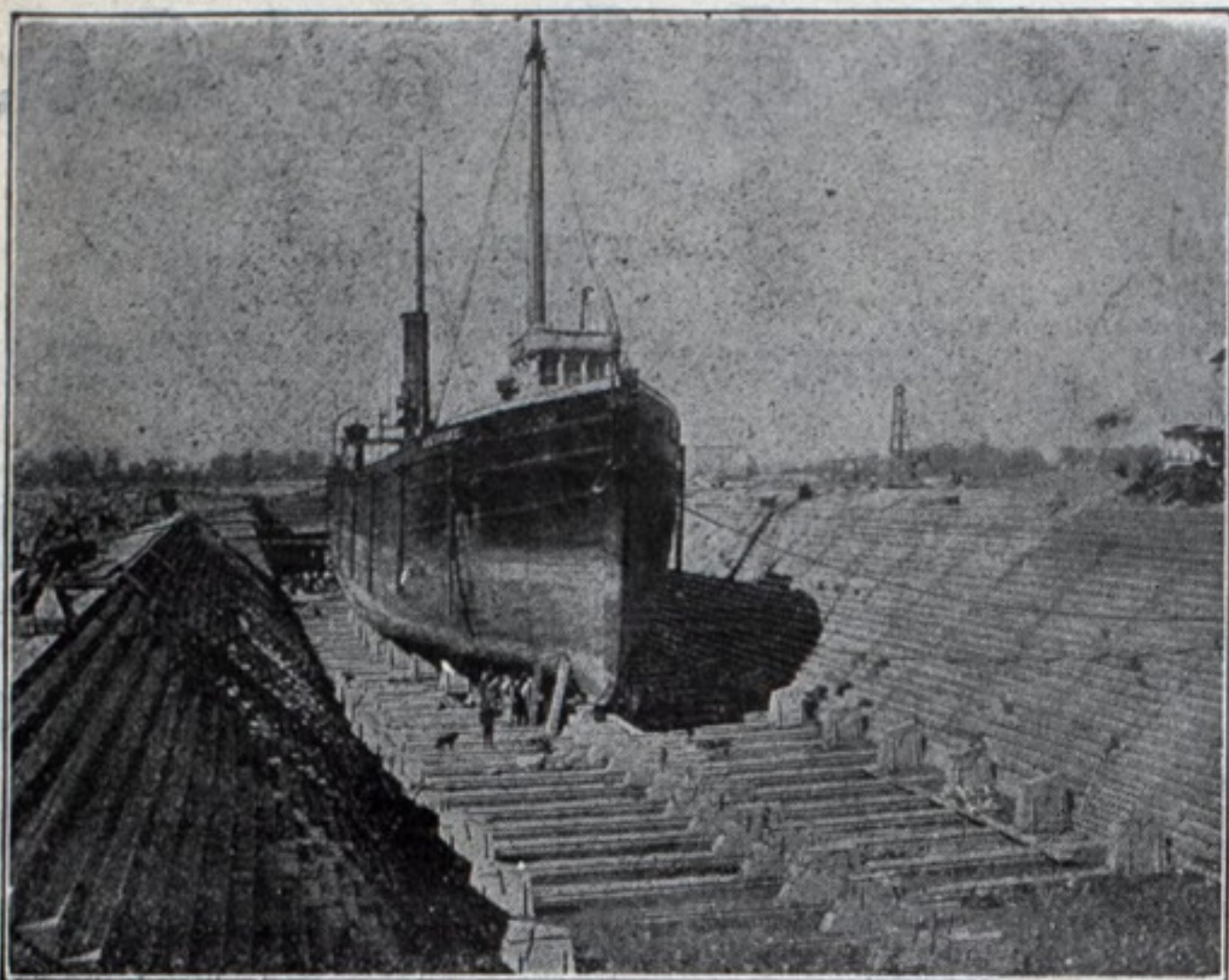
CHICAGO, ILL.

Dan'l McLeod,

MARINE SURVEYOR AND
APPRAISER.ALL HULL DAMAGE CASES
PROMPTLY ASSESSED.

ORDERS SOLICITED.

713 Perry-Payne Bldg., Cleveland, O.



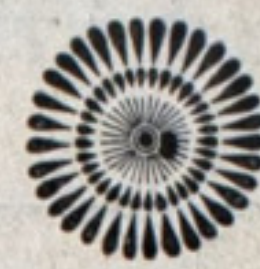
Craig Ship Building Co.

TOLEDO, OHIO.

New Dry-Dock 450 feet long, 110 feet wide on top, 55 feet wide on bottom, 16 feet water on sill.

Repairs to Metal and Wooden Ships a Specialty.

Metal and Wooden Ship Builders.



H. A. HAWGOOD, Pres't.
PHILIP MINCH, Vice-Pres't.

C. A. MORGAN, Gen'l Mang'r.

A. SMITH, Sec'y.
J. R. SPRANKLE, Treas.

The Cleveland Tug Company,

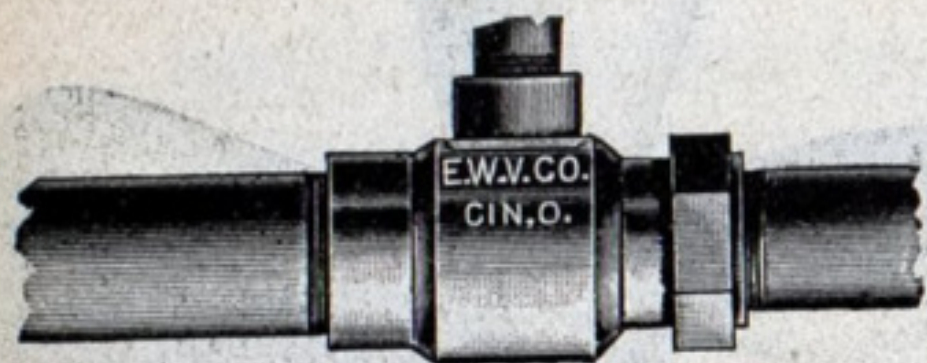
First-class Tugs,
Steam Pumps,
Divers, Hawsers,
Lifting Screws,
Etc., furnished
Promptly on
Orders by Tele-
graph or oth-
erwise.



Steamers when outside wanting our Tugs, blow one long whistle and as many short ones as they want tugs.

OPEN DAY and NIGHT.
Long Distance Telephone 125.

OFFICE 23 RIVER ST.



USE THE VANDUZEN

...STEAM JET...

PUMP

The BEST Steam Jet Pump in the WORLD,

It pumps the most water using the least steam. Its cost is a little more than the common syphon, but will use only one-third the quantity of steam; and it takes coal (? of \$) to make steam. The ONLY reliable Jet Pump for fires on steam vessels. A No. 7 Pump costing \$25.00 will force water through 50 feet of hose and throw a 3/4 inch solid stream of water 75 feet from end of nozzle without fail as long as there is water at end of suction pipe. It will not freeze. Has no valves. Every pump guaranteed. Ask your ship chandler for them, or write to us for illustrated catalogue.

THE E. W. VANDUZEN CO., Cincinnati, O.

A. Gilmore's Sons,

**Dry-Docking,
Ship Building and
Repairing.**

EAST SIDE, NEAR IRONVILLE, - - - TOLEDO, O.

Dimensions of Dock, 236 feet long, 55 feet wide at top and 37 feet wide at gate. Nine feet water over sill. RATES OF DOCKING, Ten Cents per registered gross ton for vessels over 200 tons. Jig Mill and Planer in connection with Dock.

'PHONE NO. 157.

Paint Your Vessel with

Superior Graphite Paint

NO BLISTERING, CRACKING OR SCALING.

Made especially for Stacks, Decks, Sides, Hulls, and Water Compartments. Strictly Anti-Rust, and most durable and economical.

DETROIT GRAPHITE MFG. CO., 542 River St., Detroit, Mich.
C. H. HOYT, Agent, 60 Gladstone St., CLEVELAND, O.

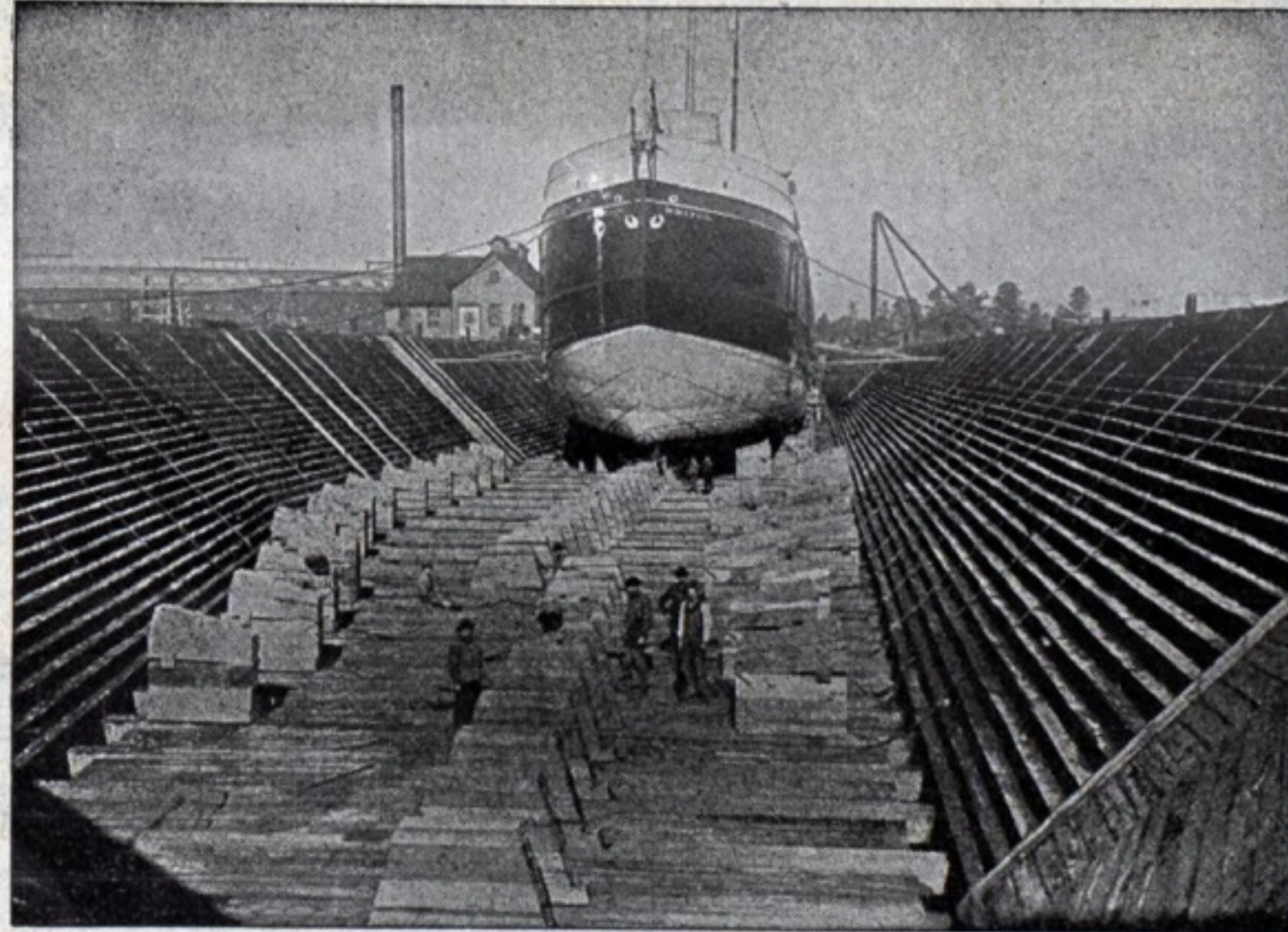
American Steel Barge Co.

STEEL AND METAL SHIPS

Of all Classes built on shortest possible notice at our yards at WEST SUPERIOR, WIS., and also at EVERETT, WASH.

PHOTOGRAPH OF 300-FOOT BOAT IN DOCK.

Plates and Material always on hand to repair all kinds of Metal Ships in Shortest Time.



Best Quality of Oak in Stock for Repairing Wooden Vessels of all Classes.

SIZE OF DOCK

Length, Extreme.....	587 feet.	Entrance, Top.....	55 feet 9 in.
Breadth, Top.....	90 " 4 in.	Entrance, Bottom.....	50 "
Breadth, Bottom.....	52 "	Depth over Sills.....	18 "

LARGEST DRY-DOCK ON THE LAKES.

Prices for Repairs and Docking same as at Lower Lake Ports.

SUPERIOR, WIS.

A Number of Propeller Wheels in Stock at Dry-Dock.

H. A. HAWGOOD, PRESIDENT.

JOHN MITCHELL, V. PRES.

R. L. IRELAND, TREAS.

W. W. BROWN, SEC'Y AND MGR.

The Shipowners' Dry Dock Company.

LENGTH OF DOCKS:

No. 1,	462 Feet.
No. 2,	350 "
No. 3,	360 "

WIDTH OF GATES:

50 Feet.
55 "
50 "

DEPTH OVER SILLS:

18 Feet.
18 "
20 "

PROPRIETORS OF

The Only Dry Docks at the Port of Cleveland, O.

Patrons, Friends and Subscribers will confer a favor by mentioning the MARINE RECORD where they are led to make purchases through our advertising columns.